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EMPIRICAL STUDIES OF
BUSINESS ETHICS AND VALUES

RESEARCH IN
CORPORATE
SOCIAL
PERFORMANCE
AND POLICY

A Research Annual

EMPIRICAL STUDIES OF
BUSINESS ETHICS AND VALUES

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INTRODUCTION:

THE EMPIRICAL DIMENSION OF BUSINESS ETHICS AND VALUES

The essays in this volume illustrate some of the possibilities, complexities, limitations, and further needs of conducting empirical inquiry into the meaning and significance of business ethics and values. Contributors were asked to meet three criteria: to conduct their research within, or with reference to, a corporate context; to develop and base the research on a body of data empirically collected; and to link their research hypotheses, methodologies, or findings to some established body of theory dealing with ethics or values. For the most part, these goals were met.

The purpose of establishing such criteria was to ensure that the final result would be distinctively empirical in derivation, be related to actual problems or phenomena that appear in the corporate workplace, and be both interesting and significant for academic theorists. Thus anchored to both the practitioner's world and the theorist's realm, the empirical core of knowledge might provide understanding and insight not readily available through more discursive or speculative literature. The intention was not to assert the superiority of this method of study over others. Rather, it was simply to provide a forum for this one type of research.

Collectively, the essays demonstrate that such studies not only are possible but that theoretically insightful and managerially useful knowledge can be one result. Such an accomplishment is no mean feat, given the relatively short life span of scientific investigations of ethics, values, and morality as they are manifested in the business sphere. This kind of knowledge contributes to the ongoing dialogue about the role of business in society, enriching and extending the views of scholars and practitioners

who approach the topic from other disciplinary perspectives or from the necessities growing out of day-to-day decisions and longer-term organizational policy making. Examples abound throughout these essays of "real life" ethical or moral problems which are elucidated in ways that have at least the power to create a fresh awareness in the workplace of the moral significance of employee and managerial actions.

Conceptual and theoretical gains also are evident. Some of these represent clarifications or refinements of core concepts considered essential by scholars, such as the meaning of "value" within a business context or the precise form taken by "moral conflict" when observed in the workplace. Others—an example is the definition of "ethical climate"—approach the status of conceptual inventions or innovations, not previously tried or demonstrated in empirical terms. Still other theoretical advances show up as clarifications of previously hypothesized relationships between, for example, corporate codes of ethics and ethically improved business performance or, another example, the relationship of corporate profits and corporate crimes. Yet another approach is seen (and demonstrated) when a conceptual or theoretical bridge is built from an accepted body of ethics theory to a given business program or activity, e.g., cognitive testing of employees or employee assistance programs. These are happy results, clarifying some of the problems that plague academic scholars and perhaps nudging this area of inquiry forward a bit.

The complex nature of this kind of empirical investigation becomes evident, particularly as one reviews the sometimes forbidding methodologies employed. There is no apparent escape from this feature, although its presence undoubtedly makes access to the findings more difficult and (for some) less interesting than might otherwise be the case. It may be worth remembering that human behavior, of which the ethics and values component is an integral part, is itself complex. The rewards are considerable for those who persevere through the methodological thickets, for they share a level of certainty, not so much that the research results are necessarily an absolute verity but that a scholar has produced data with infinite care and a view to honest if cautious reporting. That in itself may be a token of an ethical attempt to clarify the complexities of ethics, values, and morality in the business system. Many, though perhaps not all, will agree that the added complexity that accompanies such empirical studies is worth the gain in new knowledge. Others will also consider it a step forward from methods or forms of inquiry based on and unable to rise above preconceived opinion and emotionally inspired bias regarding business performance.

Ah, the limitations—tenfold greater even than the complexities! They come in various sizes and types. Among the most difficult are definitional problems, which often shade into the most basic questions of semantics

and rhetoric. Anyone who tries his or her hand at empirically defining "value" or "justice" or "morality" or "crime" is quickly humbled and often baffled in performing what may seem to be such a simple task. Equally elusive are measures of ethical performance or value commitments in which one can have full confidence. Investigators also frequently question the quality and reliability of the data they collect—do these data truly reflect and communicate the universe of discourse that is the target of the research? Even when one can be assured that the data are relevant and plentiful enough for investigative purposes, the statistical manipulations of those data may fall far short of giving the needed or desired insight to support or reject a hypothesis.

At times, long before a researcher gets to the point of data collection or data analysis, he or she may have been subtly diverted from any given line of investigation by sociological or philosophical factors. Research dealing with sometimes controversial ethical issues is thought in some quarters to be a high-risk activity, especially for younger scholars whose careers are in the formative stage. Nor have business firms always welcomed close inquiry into their affairs, particularly those tinged with ethical or moral considerations. Their failure to cooperate in providing access to data or to employees has torpedoed more than one research project, helping to identify this area of inquiry as one especially difficult to aspiring scholars. If one looks even further into the cultural limitations placed on ethics-and-values research in the business realm, it is possible to note the long-dominant traditions of positivist and relativist thought which, when added to even longer-term religious perspectives, have discouraged comprehensive inquiry into the nature and meaning of human values. Happily, some of these ancient prejudices have begun to loosen their hold on the academic mind but they continue to haunt and intimidate some.

Finally, there is a more mundane but nonetheless frustrating kind of limitation experienced by those who conduct research in this area, namely, the intellectual compartmentalization of knowledge. It is an outgrowth of the different disciplinary approaches taken and the distinctive historical traditions that lie behind these disciplines. Due to this compartmentalization and the mountains of information produced by each discipline, it is frequently (perhaps typically) true that philosophers interested in ethical inquiry are quite as unfamiliar with parallel work being done by social scientists as the latter are ignorant of philosophical studies that could inform their own work. The losses for each group are potentially large, and efforts to cross-fertilize these compartmented disciplines are a most worthwhile endeavor.

This last restriction on the free flow of research dealing with business ethics and values helps define perhaps the basic need of this field. It is the need to integrate and correlate with each other the many different

theoretical perspectives, the variety of methods, the actual practitioner problems that give rise to and justify such research, and the programmatic responses that have been made by both business and public policy officials to ethical and moral issues in the workplace. Currently, these tend to be carried out as separate enterprises, as some examples from the following essays reveal.

It is a decided gain to be able to link illegal corporate behavior to the characteristics of an industry, the profit performance of a corporation, the structure of a corporation's board of directors, or the presence or absence of a code of ethics (cf. Phillip Cochran & Douglas Nigh; M. Cash Mathews; Frederick Gautschi & Thomas Jones). Important as these insights are for both private and public sector policy makers, they tell little about the *behaviorial* aspects at work inside the industry, the company, or the board of directors that produce the illegal acts. One wishes to know something about the behavioral stimuli that led the corporate actors to commit crimes, what was in their minds at the time and later on, and how they rationalized their acts to themselves and their cohorts. Without this additional behavioral knowledge of how these crimes were committed, one can only guess why and under what circumstances profit performance or board structure or corporate size is correlated with criminal corporate behavior.

Another type of yearning for completeness occurs when research that does deal directly and explicitly with the behavioral component of ethical acts (cf. Robbin Derry; Bart Victor & John Cullen) is not or cannot be linked with the *values* that may drive the actors to behave as they do. Even though, as in these two studies, the researchers may recognize the desirability of placing ethical behavior within a larger societal or cultural framework, the absence of this wider orientation hampers a full understanding of the moral significance of such behavior.

A similar but even more egregious lack of completeness may occur when research on values (cf. Frederick & Weber; Ravlin & Meglino) fails to establish a *bridge to ethics theory or to theories of moral development and moral reasoning*. It is even possible that methodological or conceptual traits embodied in studies of this kind hamper a full explanation of the behavioral component of business practices. In the event, one pines for a closer linkage with relevant ideas and insights produced by other researchers.

A problem plagues even those whose research most clearly is able to demonstrate a relationship between business behavior and specific programs that display ethical and moral characteristics. While pointing out the ethical import of cognitive testing of employees (cf. Olian & Guthrie) or employee assistance programs (cf. Roman & Blum), such studies make

only a modest contribution to *theory building or clarification of theoretical issues raised in other contexts*.

These gaps—they might well be called theoretical synapses—exist in spite of our best collective efforts. Finding ways to bridge those gaps—to send intellectual impulses coursing across them—would unquestionably enrich the kind of understanding that most researchers in this field seek. What appear to be the “separate” fields of ethics, values, moral development, applied business ethics, and moral reasoning are to some extent an intellectual and philosophic artifact of earlier times and older intellectual orientations. Those who work in this part of the academic enterprise need to strive for greater integration of their own separate research endeavors with wider realms of inquiry undertaken by others.

A passage appearing in one of the following essays, though focused on the concept of moral reasoning, eloquently captures the essence of this generalized need for theoretical and behavioral integration:

Each individual's conception of morality is a rich fabric of perceptions, experiences, values, and needs. . . . Research is a way of gathering and comparing many tapestries. A researcher [can] pull apart a few of the different threads and examine their unique textures. . . . But to understand moral reasoning the threads must be seen within the complexity of the entire design.

It is a perspective worth bearing in mind by those who in the future conduct empirical research into business ethics and values.

* * *

Lee E. Preston, the series editor of *Research in Corporate Social Performance and Policy*, has made this volume possible. He gave strong support to incorporating its theme of empirical research on business ethics and values into this annual series. Most scholars who teach and write, and many practitioners who make decisions and set policies in the area of corporate social behavior, acknowledge the long-established and much-admired leadership of Preston. His contributions have been many—to theory, to research, to the intellectual nourishment and development of young scholars, to forging contacts between academics and practitioners, to the professional organizations that sustain the field and bring scholars into contact with one another, to teaching and helping maintain curricular standards of accreditation, and to editing this annual JAI Press series that publishes leading-edge research on corporate social performance and policy. All of the authors represented in this volume join me in expressing our gratitude to him for providing us with a way to report our studies to

a wider world. At the same time, we absolve him of responsibility for the essays' contents and the editorial judgments made.

I should like also to note with particular pleasure the inclusion here of John E. Fleming's national survey of the current status of research on business ethics. The timing of his study was most fortunate and is a valuable orienting discussion of the academic infrastructure that supports this kind of research. His call for greater attention by researchers to the actual needs and perspectives of management practitioners is a welcome reminder that the ultimate justification for applied research is its relevance to the world of experience in which practitioners do their work.

William C. Frederick
Guest Editor

A SURVEY AND CRITIQUE OF BUSINESS ETHICS RESEARCH, 1986

John E. Fleming

Business ethics is a developing field in which academic research and scholarly writing play an increasingly important role. There are now two journals, the *Business and Professional Ethics Journal* and the *Journal of Business Ethics*, concerned specifically with this area, while numerous other publications in both philosophy and business include papers from this field. In addition, a steadily greater flow of scholarly books is being published on business ethics.

Another indication of the development of the field has been the formation of business ethics centers, many of which carry out a variety of research projects. This effort complements the valuable contributions of scholars not affiliated with such centers in many other institutions. And yet another sign of growth in the field is a number of endowed chairs in business ethics that have been established at colleges and universities such as Santa Clara, Loyola Marymount, St. Thomas, and Rice.

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THE STUDY'S METHODOLOGY

The author carried out a sabbatical research project in the spring semester of 1986, designed to map the area and to describe the cutting edge of business ethics research. The data were gathered through structured personal interviews with more than fifty scholars.

There are a number of academic disciplines that contribute in different ways to the body of knowledge that is forming in the field of business ethics. These disciplines include philosophy, theology and various types of social sciences. Philosophers make their contributions through the rigorous reasoning process of "critical thinking" (Goodpaster:1984, p.7). When the term, "research," is used, many philosophers think it refers only to empirical investigations of the social sciences and does not include their work. Theologians can have a similar view. However, in this paper the term, "research," is used in a broad sense to include all forms of academic investigation that meet the criterion of being systematic inquiry.

Research in business ethics spans a wide spectrum of methodologies because of the nature, heritage, and early stages of development of the field. But to be classified as research in this study, the academic work had to be an inquiry guided by theory and/or specific conceptual frameworks. As such it could vary from the critical thinking of metaethics to the empirical studies of value research. This great variety in type and method of research is one of the strengths of the field.

Sixteen of the individuals interviewed in the study were directors of business ethics centers. The remaining thirty-five researchers not affiliated with centers were selected primarily on the basis of each individual's published contributions. This was determined in large part from a study the author conducted of references in recent journal articles (Fleming: 1987). To the core group were added a few others who were authorities in closely-related fields (professional ethics, public administration ethics, corporate responsibility and public policy, etc.), and several whose contributions were either as "elder statesmen" or in some other significant way not directly related to publications.

The selection of the particular individuals in the final sample was not a random process but was influenced considerably by the requirements of travel routing and scheduling. Unfortunately, a number of leading scholars could not be visited because of cost or time considerations. But since this bias was based on geographical and scheduling factors, it was believed that it did not seriously distort the generalizations for the field that are made in this paper.

In the interviews, questions were asked concerning the academic background of the individuals because it was felt that such information would

be helpful in interpreting the answers to other questions. Then an overview of the individual's research program was explored, followed by a more detailed discussion of two current or recently completed research projects. If the interviewee was affiliated with a research center, information concerning the research carried out by the center was explored in some detail.

An acknowledged shortcoming of the study was the omission of the bright young researchers who have just entered the field or the very promising doctoral students completing their programs in this discipline. These individuals had not produced sufficient publications to have been included in the sample selection process, but in many cases they are at the leading edge of the field through their rigorous research.

BACKGROUND OF RESEARCHERS

The undergraduate major fields for 38 of the researchers are shown as a percentage of the total in Exhibit 1. This group became a subsample of all those interviewed because the questions concerning the background of the researcher were not asked in thirteen interviews. The omissions were due primarily to shortage of time in the interviews where items thought to be of greater importance were being discussed. The author believes that no intentional bias was introduced through the omissions.

The fields of undergraduate study were classified into six groups, indicating considerable diversity of background at the undergraduate level of academic preparation. Although philosophy was the largest group, it accounted for only one-fourth of the total. Similarly, the combined eco-

Exhibit 1. Type of Undergraduate Major Fields (As a Percentage of the Total)

<i>Percentage</i>	<i>Type of Degree</i>
24%	Philosophy
18%	English, Literature, History, Liberal Arts
18%	Political Science
16%	Economics and Business
16%	Mathematics, Engineering, Physical Sciences
8%	Other Social Sciences
100%	

N = 38

nomics and business degrees made up only one-sixth of the whole. But an interesting equality of two groupings resulted. The humanities (philosophy, English, literature, history, and liberal arts) equaled the social sciences (political science, economics, business, and other social sciences), each with forty-two percent.

The relationships between major fields at the undergraduate and doctoral levels are shown in Exhibit 2. It would appear that undergraduate majors in philosophy, English, literature, history, and liberal arts led to a predominance of doctoral majors in philosophy. Similarly, undergraduate majors in economics, business, and political science led to a predominance of doctoral majors in business. But the fields of mathematics, engineering and the physical sciences split evenly between philosophy and business. And a careful reading of the exhibit reveals a few other surprises along the way. One can conclude that the undergraduate major was a good but not perfect predictor of the doctoral major for those currently contributing to the field. But of greater significance was the variety of doctoral fields from which the research preparation for this discipline came.

Half of the professors interviewed in the research project had been involved in full-time professional or managerial work outside the academy. Eleven had worked in business, four in the religious field, three for non-profit organizations, three in government, and one each in law and the military. It was somewhat surprising that only about 20 percent of the researchers had business experience, considering the applied nature of the field and the perceived need for in-depth understanding of business practice.

Exhibit 2. Relationships between Undergraduate and Doctoral Major Fields

<i>Undergraduate Major</i>	<i>Doctoral Major</i>
Philosophy (9)	Philosophy (7), Business (2)
Literature, History, etc. (7)	Philosophy (5), Psychology (1), Classics (1)
Political Science (7)	Business (4), Ethics (1), Law (1), Political Science (1)
Economics and Business (6)	Economics and Business (5), Philosophy (1)
Mathematics, Engineering, and Physical Science (6)	Business (3), Philosophy (1), Ethics (1), Theology (1)
Other Social Science (3)	Philosophy (2), Political Science (1)

N = 38

() indicates number of students in majors.

A TOPOLOGY OF CURRENT RESEARCH TOPICS

In the field interviews each researcher was asked to describe several of his or her recent projects. A total of 67 studies and scholarly papers were discussed. These form a sample of leading-edge work in the field of business ethics.

A conceptual model or "topology" of the topics covered in this research was developed to help define the general directions and areas of emphasis. This model is outlined in Exhibit 3 and is examined in some detail in the following sections. The basic structure starts at the general level of capitalism and the economy. It then moves to the more specific components of industries, corporations, and multinational corporations. In even more detail it continues with functional areas, managers, and stakeholders. The last category of metaethics shifts to the theoretical aspects and relationships in this applied field of business ethics.

Capitalism and the Economy

Three writers, each having taken different approaches to the topic, attempted to make a moral evaluation and explanation of certain fundamental assumptions and observations relating to the capitalistic system. One study using historical analysis sought to explain why business ethics declined during the 1890s and is now gradually improving. A principal hypothesis was that the principle of "caveat emptor" is antithetical to how business should be run. The second project defined "the common good" and examined it as a constraint on moral business action. The third paper viewed the golden rule as the moral base of the free enterprise system. These were macro studies at a very broad and general level of analysis. Three other writers narrowed the focus slightly by looking at the relationship of government to business and the ethical impact of the law on the corporation.

The moral nature of profits and the impact of ethics on technology and business were further areas of exploration. Both were important subjects but were somewhat overshadowed by the very current and critical topic explored by two other researchers concerning the ethics of hostile takeovers.

These investigations appeared to be addressing issue areas that have generated high degrees of public interest. They are very complex areas at a macro level that tend to resist solutions. Most have been researched extensively from the viewpoints of many different disciplines. What was unique and important was the introduction of moral analysis into these issue debates. But an unanswered question centers on whether or not this

Exhibit 3. A Topology of Research Topics

-
- A. Capitalism and the Economy (11)
 - 1. Ethics of Business (3)
 - 2. Government, Law and Business (3)
 - 3. Self-Regulation (1)
 - 4. Ethics and Profits (1)
 - 5. Technology and Business (1)
 - 6. Ethics of Hostile Takeovers (2)
 - B. Industries (3)
 - 1. Consulting (1)
 - 2. Defense (1)
 - 3. Venture Capitalists (1)
 - C. Corporations (10)
 - 1. Corporate Culture, Beliefs and Values (2)
 - 2. Codes of Ethics (2)
 - 3. Corporate Governance and Stockholders (6)
 - D. Multinational Corporations (MNCs) (7)
 - 1. MNCs in Third-World Countries (3)
 - 2. South Africa Divestment (2)
 - 3. MNCs Self-Regulation (1)
 - 4. Cross-Cultural Study of Ethics (1)
 - E. Functional Areas (13)
 - 1. Accounting (1)
 - 2. Advertising (1)
 - 3. Human Resources (2)
 - 4. Legal (1)
 - 5. Management Information Systems (3)
 - 6. Marketing (1)
 - 7. Public Affairs (4)
 - F. Managers (9)
 - 1. Decision Making (4)
 - 2. Ethics of Leadership (1)
 - 3. Ethics of Management (2)
 - 4. Manager Values and Value Systems (2)
 - 5. Moral Reasoning Development (0)
 - G. Employees (6)
 - 1. Rights (4)
 - 2. Duties (1)
 - 3. Unions (1)
 - H. Metaethics (8)
 - 1. Theory of Ethics (2)
 - 2. Relationship of Religion to Business Ethics (3)
 - 3. Ethics and Economics (2)
 - 4. Applied Ethics (1)
-

() Number of Projects

research will have a meaningful impact upon the development of regulations, laws, and governmental policies.

The topic of relating ethics and law seemed to the author to be a future growth area in research as the legal and business ethics disciplines become intertwined through interdisciplinary efforts. In the sample of researchers in this study, one was an attorney and two others (both philosophers) were making strong efforts toward personal development in law.

Industries

Only four percent of the research projects dealt with the ethical problems of specific industries. A study of consulting ethics by a management professor took a practice-oriented approach to the subject with the objective of providing guidelines for practitioners. Another research project on the defense industry was a broad examination of management practices meant to assist in the creation of an ethical climate. The topics studied included codes of conduct, ethical training and development programs, and ombudsmen systems. The research was prepared for a government commission and therefore had considerable potential for influencing governmental policies.

A third study of the venture capital industry was based on a legal action brought by a large computer company against a venture capital firm. The charge was that the venture capitalist illegally and unethically financed a small company knowing that the technology for the small company had been stolen from the computer manufacturer. Such a study of business ethics could have considerable relevance to managements in the financial industry.

These three research projects on the moral issues of specific industries were few in number but exhibited a strong degree of relevance for consultants, government policy makers, and financial managers. The type of moral analysis in these studies was oriented strongly to management practice in specific situations and was highly issue specific. It seems that this area of research provides a fine opportunity for future growth. Initially such growth will most likely follow the past pattern of concentrating on industries in which ethical problems have surfaced. But as the field matures and management recognition of the need for ethical climates becomes more widespread, the interest in and range of these studies will probably increase.

Corporations

The research level now shifts from the industry to the corporation. Two projects took different approaches to relate corporate culture and business

ethics. In the first study the theoretical framework was based on Schein's work (1985) concerning the underlying beliefs and assumptions of the corporate culture. The researcher used this model to apply religious beliefs (such as faith, sin, forgiveness, and renewal) to management. This was a conceptual work to relate religious beliefs to business practice. The second study looked at the management actions taken by companies to create what was defined as an "ethical culture." It was a large-sample empirical inquiry utilizing a mailed questionnaire. Both of these projects emphasized ethical management practices in the creation of a moral corporate culture.

Two other researchers looked at the area of ethical codes of corporate conduct. The first was an interdisciplinary study by a philosopher and a professor of accounting to develop an ethical code that could be utilized to evaluate a management's moral performance. In the second project the corporate actions necessary to institutionalize codes of ethics were studied by on-site data collection at four companies.

The area of corporate governance generated considerable research interest. Two scholars were or would be looking at the ethical responsibilities and changing ethical consciousness of members of corporate boards of directors. The first inquiry was a conceptual paper, the latter a planned empirical study collecting self-reported data from members of boards comparing the past and the present.

Four other researchers investigated the ethical roles of stockholders. According to the findings of one conceptual study, it is impossible for a stockholder to perform the role of owner in a responsible manner; therefore this fiction should be eradicated by eliminating stockholder voting. Two other researchers were investigating the ethical responsibilities of large institutional investors and their moral roles in corporate democracy. One of these studies was conceptual, the other empirical. The fourth scholar was writing a conceptual book to provide guidance to individuals in ethical investing.

Another research project in the area of corporate governance investigated the ethical aspects of hostile takeovers. It examined these situations and found them to be lawful and "within the rules of capitalism." Yet they were "causing great moral outrage." Did this outrage result because takeovers were unethical, or because they disturbed the relationships of a target or acquiring company? The initial findings at the time of the interview tended to favor the latter explanation.

In looking at this array of research projects on corporations, the use of corporate culture as a framework for studying the ethics of the firm would seem to hold considerable promise. Corporate culture is an important topic in current management thought and is a familiar subject to many managers. The concepts of shared values, basic values, and underlying beliefs are some of the basic elements of corporate culture. These may form useful

bridges for the introduction of normative principles from philosophy and theology into this area of management theory and investigation.

Codes of corporate conduct have been a major topic of business ethics research for a number of years. Initially the concern was focused on the topics covered in the codes. As the field matured, the interest has started and will continue in the future to shift toward the implementation of codes. Written documents, important as they are, need to be managed and institutionalized.

Since the topic of corporate governance appears with great frequency in the business press, it seems that the researchers in this area are targeting a critical topic. The legally sanctioned roles of boards of directors and stockholders are so at variance with actual business practice that the whole area is somewhat confusing. With the current concepts of directors acting as "trustees" for the corporate stakeholders and of stockholders being primarily investors rather than owners, the business practitioner has few standards for making decisions. The provision of normative guidelines through business ethics could be of great assistance to business executives.

Multinational Corporations

A particular type of business, the multinational corporation (MNC), has generated its own excitement in the business ethics research area. Three scholars were conducting wide-ranging studies in relation to the moral issues of MNCs operating in third-world countries. One project was at the level of ethical theory in which relativism versus universal moral principles was examined in different cultures. Another looked at the moral responsibility of the parent corporation when a subsidiary was operating in a developing country, using the Bhopal accident as a critical incident. The third was a broadly based theoretical study integrating concepts from such disciplines as philosophy, economics, management, and international relations. It dealt with such topics as risk, cultural differences, bribery, rights, and international moral norms.

The South African disinvestment and divestment issues were the topics for two research studies. One was an extensive field investigation of the situation in South Africa to answer the question whether it is moral for United States companies to remain in that country. The other project was a study for the city council of a large American city concerning the ethics of investing city funds in companies that do business in South Africa. The resulting report included a draft ordinance for divestment which was subsequently adopted.

Two other research studies were being carried out relating to MNCs. One had to do with self-regulation of the pharmaceutical industry in third-world countries and was carried out by an extensive, on-site study in east

Africa. It was hoped that the findings of the research would lead to a strong program of self-regulation in the industry that in turn would safeguard the foreign customers, protect the interests of governments and corporations, and prevent the enactment of restrictive government regulations.

The other study in this area was a cross-cultural survey of management values and ethics in Germany, France, and the United States. It was a long-term investigation utilizing vignettes of business situations involving values and ethics. A mail questionnaire was used to present the vignettes and questions concerning them to the subjects. At the time of the interview the data collection was on hold while the instruments in each language were being modified to account for the cultural and legal differences that might cause misunderstandings or misinterpretations of the vignettes.

The ethics of MNCs is one of the major growth areas of the field. It reveals the increasing maturity of business ethics. The relatively narrow, issue-directed studies of ten years ago have been largely replaced by broader studies dealing with important management concerns. And the problem of relevant cultural differences between countries, a perplexing and critical topic for managers, has been addressed directly in several studies.

Functional Areas

In this category of research topics, the focus shifts to the functional areas within the corporation. One such study looked at the ethics of decision making by accountants and their responsibility, not only to the corporation and their profession, but also to the public. Another philosophical analysis defined moral norms for advertising and then examined deceptive practices. It was argued that in an ethical trade situation the moral action is for the seller to give the buyer a rational reason for buying. The researcher found that only about one-half of the advertising in the United States provides rational reasons for buying. Therefore it is "metadeceptive" and unethical.

In the area of human resource management a comprehensive research survey was being carried out to determine the extent and type of business ethics training programs to be found in companies today. In another project a two-person research team was studying the ethics and values of organization development practitioners. It was hoped that one of the outputs from this work would be a code of ethics for the field of organization development.

Management information systems (MISs) were being investigated by three researchers. One was looking at the critical issues of confidentiality

and proprietary information from an ethical viewpoint. Another was interested in the important but largely neglected area of computer ethics. Among the issues examined in this philosophical analysis were the property rights of computer programs, privacy, and the responsibility of business to participants. The third study was a similar investigation of the moral responsibilities of MIS managers as the United States enters the "information age." The findings indicated that the sheer size and complexity of information systems and the dependence of people on information shifts the locus of responsibility to the MIS managers. The result is a greater emphasis on being ethical.

In the functional area of marketing there was a large empirical study being conducted on the values of marketing managers. Seven hundred persons had returned questionnaires that included ethical vignettes and the Rokeach values instrument. The objective of the study was to develop a predictive model that links values and decisions.

Public affairs management is a relatively new functional area in business that includes governmental and external stakeholder relations. One project involved developing ethical guidelines for the involvement of managers in public policy. A series of studies had explored corporate responsibility in plant-closing situations. Another researcher in a conceptual study was defining the corporate social policy process by examining, comparing, and relating business ethics, corporate social responsibility, and corporate social responsiveness. And a team of scholars, through on-site field work, was studying companies that are getting involved in public projects, such as child-care center initiatives.

The research topics in these functional areas were directed largely toward important issues that managers were facing. They also focused on the functional areas that are at the forefront of ethical involvement. The accountants have had an interest in the ethics of their profession for a number of years, but this has broadened into an active concern for business ethics in general.

The human resources manager is becoming the business ethics administrator in many organizations. It is his or her responsibility to coordinate and administer the ethical policies, programs, and cultures envisioned and established by top management so that an ethical corporate climate will exist throughout the organization. In the area of management information systems the interest in business ethics grows with the realization that the relevant laws are deficient and the opportunities for immoral actions are numerous. And in marketing, the criticisms of advertising and other practices have spurred a renewed interest in business ethics research. All of this would seem to indicate that a fine opportunity exists to make important contributions to the practice of management through well-executed ethics research in these functional areas.

Managers

Managers took center stage in these types of research topics. Since decision making is a critically important activity of management, it was not surprising that this subject attracted considerable attention from researchers. One conceptual study took a pragmatic approach and looked at the detachment and moral strength that are necessary for managers to make the "tough" decisions. Another interdisciplinary project developed a conceptual framework for the legal and ethical aspects of management decisions, while a recently completed conceptual paper dealt with the factors that affect the ethical decision process from the viewpoint of managerial decision theory.

Leadership can be described as a synergistic combination of vision, communication, and motivation. It is a critically important management activity that is very difficult to understand and is seldom linked directly to ethics, although leaders are often assumed to be ethical. One scholar was writing a book that he described as "a philosopher's reflections on management and values based on the concept of leadership."

In the area of manager values there were two large empirical projects relating values to other aspects of management. One study sought to compare the value profiles of corporate managers with those of social stakeholders who have been critical of business. The values were determined through the use of a modified Rokeach (1973) instrument in which a Likert-style scale was substituted for the ranking of all 36 values. It was hoped that this research would reveal similarities and differences in the value profiles of these groups that would help define areas of compromise and accommodation. The other study investigated the relationships between management value systems and decision styles, using the Rokeach (1973) instrument for values and the Rowe (1985) inventory for decision styles.

The topics in this area are dealing with three critical aspects of management: decision making, leadership, and values. But the number of studies and the variety of topics should have been greater considering the importance of the subject. If managers at all levels of the organization are "trustees" for the corporate stakeholders, then a high level of moral behavior is to be expected by society. This may and should cause a corresponding increase of interest in management ethics on the part of both practitioners and scholars.

An area of ethical inquiry that is important and did not appear in the research projects of this study is the development of moral reasoning. The pioneering work of Kohlberg (1976) and others is being tested and challenged today by other researchers. Although such studies are not confined to managers in business, the results can have an important impact on management development programs in the area of ethics.

Employees

The rights of employees is a very important subject in this area of business ethics, and for many scholars the subject presented an attractive challenge for investigation. Studies were carried out in the areas of job rights, the ethical meaning of equal opportunity, and the employee's rights in plant closings or company mergers.

On the other side of the coin is the area of employee duties and responsibilities. This area was largely neglected by business ethics scholars. Only one research project was noted, a series of articles for practitioners in the area of employee thefts.

Another part of this topic that received little attention was unions. One researcher planned a study in this area connected with an interest in "the forms and limits of human association." She wants to investigate why unions are declining and losing their "relevance." An important topic in this study will be the changing values of the individuals involved.

The subject of loyalty was missing completely from the research agenda. In today's turbulent business environment, loyalty seemed to be largely ignored. Occasionally a manager will bemoan its lack in employees, without realizing how little loyalty the company may show as it lays off long-time employees. The need for and fate of this once-respected virtue seems to be a fertile area for ethical study.

Metaethics

The previous topic areas have dealt largely with the application of ethics and value theories to business. In the area of metaethics the theory itself becomes central. Here we are concerned with theoretical ethics and the sources of ethical principles.

Several of the researchers interviewed in this study stated that at least part of their writing was in theoretical ethics. For example, one such scholar was developing a theory of moral responsibility and legal liability deeply embedded in metaphysics. He was attempting to substitute a "shame principle" for "guilt" as he extended his conceptualization into aspects of legal liability. Another writer has worked to define "the common good" so that it can be integrated into applied ethics as "a constraint on moral business action."

The relationship of theology and religious concepts to business ethics was a major research concern of three scholars. Although philosophy may have to dominate business ethics because it forms a common base with broad support, all three researchers felt that religion has an important role to play in the development of this field. Since many managers are religious, there was a perceived need "to connect religious values to business for

them." It was also believed by one researcher that the religious community can be more sensitive than philosophers to morality, moral obligations, and human dignity.

Two other researchers were working to define "the intersection of economics and philosophy." One of these studies was an effort to relate the basic theories of each discipline, while the other utilized a rights framework for analysis. A third scholar was concerned with the general goals of applied ethics. All of these efforts were expended to improve and enlarge the theoretical base of business ethics.

Comments

One measure of the strengths or weaknesses of the topology of research on business ethics is the relevance and usefulness of the studies to managers. What impacts do these projects have on business decision making and public policy formulation? To the academic reader it seems that many of the studies described in this paper are addressing important topics. But two things are unclear: What are the impacts? Are there more significant topics that go unstudied?

To answer these questions one would need to conduct two studies. The first would be a survey of business managers concerning the relevance, importance, and usefulness of the research. The second would be a study of how scholars select topics to be researched. Do they make an extensive survey asking about the areas of critical need? Or do they select a topic of personal or professional interest and hope that it has significance to the practitioner as well as the scholar? These two alternatives are probably end points on a continuum with the actual practice of topic selection lying somewhere in between. As one respondent in the research project said, "There has to be a match between what contributions academics want to make and what business managers actually need."

METHODOLOGIES IN BUSINESS ETHICS RESEARCH

The discussion now shifts to the methodologies utilized in business ethics research. A conceptual model of such research is presented, followed by an examination of the characteristics of the methodologies.

A Conceptual Model

A model of the methodologies used in business ethics research is shown in Exhibit 4. The framework for this conceptualization is based on a partitioning developed by Goodpaster (1984) that divides the field into three

Exhibit 4. Methods of Business Ethics Research

<i>Normative (25)</i>		<i>Descriptive (34)</i>	
<i>Principles</i>	<i>Practice</i>	<i>Empirical (16)</i>	<i>Conceptual (18)</i>
Critical Thinking (Case Example)		Questionnaire Interview Cases Historical Analysis Quantitative Analysis	Essay Outline Model
<i>Metaethics (8)</i>			
<i>Theoretical Systems</i>		<i>Individual Theories</i>	
		Theoretical Analysis Theoretical Synthesis Relationship to Other Systems	

() Number of studies in each classification

parts: normative ethics, descriptive ethics, and metaethics. Each method in these three basic types can be visualized as lying along a continuum, the ends of which are opposing extremes. The exhibit also shows the most common methodologies for each basic type.

Research on normative ethics includes studies that deal with the concepts of right and wrong, good and bad. At one end of the continuum are the principles from philosophy and theology that provide the ethical standards for the more abstract studies. Business practice is at the other end of the continuum, as found in the more practical types of investigation. Each research methodology of normative business ethics lies somewhere along this continuum, a combination in certain proportions of principles and practice. The basic research methodology is the rigorous philosophical form of analysis known as "critical thinking" (Goodpaster, 1984). Also frequently included is a case example of a business situation to which the critical thinking is applied.

The other type of inquiry for which we have major concern is research on descriptive ethics. These studies primarily describe and explain phenomena and behavior in the real world without value judgments as to whether they are right or wrong. The end points of the continuum for research on descriptive ethics are empirical and conceptual. Empirical investigation has to do with observing and collecting some form of data from the environment. Conceptual inquiry deals with the development of ideas and relationships in the mind and their presentation in such a way that the complexity of the real world is reduced and understanding is increased.

There are many types of empirical research methodologies used in descriptive ethics. A representative sample of five basic types is shown in Exhibit 4. Questionnaires can be standardized instruments (e.g., for determining the values of managers) or documents specially prepared for a particular survey. Interviews are generally structured so that a uniform array of information is sought from all the respondents. The business case is a useful research tool, not only in critical thinking, but also in values data collection by having subjects evaluate case situations. Historical analysis is also very effective in this field as a method of capturing present-day understanding of ethical situations through the perspective of changes and developments over time. And the last type, quantitative analysis, is growing in use as the number of projects with a large number of subjects increases, making possible the utilization of inferential statistics.

Conceptual methodologies are shown in the exhibit as methods of output presentation, since the data gathering and processing occur in the mind of the researcher. There are many types and variations, but the essay, the outline, and the very important conceptual model are representative examples.

Metaethics is concerned with the development of ethical theories and the relationships of different theoretical systems and disciplines. It lies largely outside the field of applied business ethics but influences the field through the development of theoretical insights. And, as noted above, a number of the applied researchers in business ethics also have a strong interest in metaethics.

The number of studies in each type of research method is shown in parentheses in Exhibit 4. The 67-paper total was broken down into 25 normative investigations, 34 descriptive inquiries, and eight projects in metaethics. Within the descriptive classification, 16 were empirical and 18 were conceptual. If the metaethics and normative groups are combined, these 33 studies by philosophers about equal the 34 inquiries of the business professors. The empirical projects made up about one-half of the descriptive category and about one-quarter of the total studies.

Characteristics of the Methodologies

A characteristic that applies to many of the business ethics research methodologies is that they are frequently used in combination. We have already seen how cases are employed in conjunction with critical thinking and with empirical research using values questionnaires. Structured interviews utilize a form of "internal" questionnaire, while historical analysis can be part of the case collection methodology. Closely related to this characteristic is one that finds models from other fields adapted to this

discipline. An example would be the organization behavior model of corporate culture that has been used in business ethics analysis, as noted previously.

Another general characteristic of the research is the increasing use of an interdisciplinary approach. This is often manifested in joint research efforts by academics from totally different disciplines. Some of the dyads noted in this study were philosophy-law, management-theology, philosophy-management, and religion-accounting.

In research on normative ethics, the characteristic that was cited most frequently was the need for "theoretical grounding" in critical thinking. One researcher advocated technical metaphysics as the fundamental basis for serious studies in business ethics. Another characteristic was the importance of definitions in this form of analysis. In the future it can be expected that philosophers will continue to be influenced by the applied nature of business ethics as they make valuable contributions to the perceived needs in business ethics research.

Two types of normative ethics studies were described by a researcher. The first involves "analyzing a puzzling business practice using standard philosophical techniques." In the second "one takes a moral concept for individuals (such as integrity) and sees if it applies to the business firm." The first is obviously the step that philosophers are taking into the area of applied ethics, while the second utilizes a traditional philosophical technique to develop a nontraditional view of the business firm.

The characteristics for inquiry into descriptive ethics dealt largely with empirical research. A favorable comment can be made on the large variety of methods used in data collection. It should also be noted that these methodologies ranged over an extensive continuum which extends from quantitative to nonquantitative.

In the quantitative type of research there were studies with large samples, one running over 1000 subjects. Most of these projects were in the area of values. The data collection was by questionnaire and several of the studies were very complex, attempting to establish relationships or analyzing multiple dimensions of a particular phenomenon (30 dimensions in one project).

A major characteristic of many of the nonquantitative studies was the large amount of field work performed by the researchers. This was particularly true in the case collection and the interviewing projects. For one study on the implementation of codes of ethics, extensive on-site research was performed at four companies. The collection of a complex case had taken one researcher eight months of part-time work, and considerable work remained to complete it.

In historical analysis the time to complete a project is measured in years.

One full-time research scholar estimated that his current work would take five years to complete. The topics studied using this technique ranged from the "big picture" subjects (e.g., business ethics) down to more focused topics (e.g., the work ethic).

Comments

There were indications that researchers in both the normative and the descriptive sections of the field are somewhat dissatisfied with the present methodologies and are searching for new ones. In the area of critical thinking there is considerable comfort in the use of traditional principles that have withstood the test of time. It is even better when one believes that the principles are universal. But have they withstood and are they universal? The answers will have to be found elsewhere. But the questions arise from the difficulties experienced in the application of some of the traditional principles to complex business situations. Many are looking for new principles or for ways to modify or adapt the old as the young field of applied ethics continues to mature. An example of such innovation might be the development of rule-utilitarianism as an extension of traditional utilitarian theory (Velasquez:1982, p.55).

In the area of descriptive ethics methodologies there is a similar search for new techniques or adaptation of the old. The primary method used in values research, the Rokeach ranking of 36 values, has been modified to make it easier for the subject to complete and to provide data in a form that can be analyzed statistically. It was somewhat surprising that none of the scholars interviewed used the well-known and important values methodology of George England in the projects discussed. One investigator, using the Rokeach method for values, also utilized an instrument from the management field to relate decision styles of managers with their values.

A social scientist engaged in empirical values research expressed the need for a more normative approach in his work. "We need to say what are good values and bad values." He discussed the type of empirical study that would be necessary to verify the Peters and Waterman (1982) concept that certain values lead to success; and he concluded that the required complex empirical approach might not be worth the effort. Then, significantly, the researcher speculated that "maybe it is better to look at the process of moral reasoning." However, such an explicit connection between the normative and empirical approaches remains to be developed.

Only a few of the interviewees in the research project had business managers as co-researchers in their projects. This appears to be a lost opportunity for the others. It seems that some managers would have the

interest and skills necessary to make useful contributions to ethics research. They would certainly be valuable contributors at the stages of topic definition, site selection, data collection, and evaluation of results. The managers who are commentators on papers that are published in the *Business and Professional Ethics Journal* make the type of contribution that is being considered here.

SELF-CRITICISM

In spite of the progress that has been made in the developing field of business ethics research, there were a few criticisms from some of the respected scholars interviewed.

- “Most of the scholarly work is useless. The real problem is *not* one of scholarly definitions. The problem is that businessmen need to know that they are doing ethics in their activities.”
- “In business schools no one has systematically addressed the field of business ethics for a ten-year period. All are heavily involved in other fields.”
- “The field is dominated by casebooks and textbooks. There is also a piecemeal approach.”
- “Philosophers have not successfully bridged the ‘gap’ between philosophy and the world of management. Also, they are often negative toward business. They have the conceptual skills but not the acceptance or credibility.”
- “Business researchers are primarily census takers who produce fluff.”
- “Business ethics research is a strange phenomenon; there is little empirical research; it is mostly writing and reflection. The greatest progress is found in professional ethics. But it is hard to use this model for business which does not have a ‘language’ or a concept of ‘vocation’.”

In a broader area of criticism there was concern expressed about the lack of integration between the normative and descriptive research methodologies. Perhaps the nature of these methodologies prevents any meaningful integration or coordination. Or it may be that the academic backgrounds and training of the researchers force these two types of research into separate camps. But regardless of the reasons, there was genuine concern expressed that this division will be dysfunctional for the growth and development of the field.

BUSINESS ETHICS CENTERS

One of the major indications of the developing strength of this field is the large number of business ethics centers that have been established. Sixteen centers (see Appendix) were visited for this research project, 14 of which are part of institutions for higher education, while two are independent entities.

One of the independent organizations, the Ethics Resource Center, is supported by the business community. It provides many types of services to business including assistance with ethics code development, management training, research programs, and publications. The other independent, The Center for Ethics and Corporate Policy, is related to 13 churches and synagogues in the Chicago area. It is representative of a number of similar church and community supported organizations such as the Trinity Center of New York and the Interfaith Center for Corporate Responsibility, also in New York.

The support and encouragement of research were part of the mission for most of the centers visited in this study. Such organizations bring together groups of scholars to form a "critical mass" for carrying out larger research projects. The centers also facilitate the formation of interdisciplinary research teams by providing an integrating organization with a focused orientation. There are also economies of scale and specialized expertise in fund raising that can make these centers more financially effective than the efforts of scholars working individually.

From the data gathered in the research project it is difficult to determine the extent and impact of the research conducted in the centers. A best estimate is that somewhere between one-quarter and one-third of the total research carried out in the field of business ethics comes from scholars working in centers. This is a significant but not dominant contribution.

Output of Centers

In addition to research, the centers also have as an output such activities as curriculum development, conferences/workshops, publications, and consulting/training services. For example, The Center for Business Ethics at Bentley College holds an annual "National Conference on Business Ethics" which attracts representatives from business, academia, and government. The format of the conference is a series of keynote addresses, panels, and presentations of papers and case studies.

Many of the centers carry out an extensive program of curriculum development, an area closely related to research, if not part of it. This work takes many forms, including the development of courses or course modules in business ethics. It also may extend into teacher training and development, usually carried out through workshops. This effort of curriculum

development and faculty training has been particularly prevalent in the centers that have the broad perspective of professional ethics; therefore these programs are usually interdisciplinary.

The funding for the centers associated with colleges and universities comes from a number of sources and in many different forms. The parent institution contributes a portion of the budget, usually covering part or all of the overhead or administrative costs. A few centers have endowment funds, but this is not a major source of funding (except for one organization that specializes in scholarly research). Unrestricted grants are very desirable but difficult to obtain. The more common type of grant is restricted for a particular purpose or project. The primary sources for both types of grants are large corporations, corporate foundations, other foundations, interested nonbusiness organizations, and individuals. A few centers have introduced a membership program for both organizations and individuals.

CONCLUSION

This study indicates that there is a growing and developing research effort in the field of business ethics. It starts with the varied academic backgrounds of the scholars interviewed. In this variety comes the opportunity of providing the broad experience and interdisciplinary input that are so necessary to growth in this field of applied ethics.

The topology of research topics further reinforces this notion of growing strength through diversity. The investigations are being carried out at many different societal and organizational levels. The researchers are tackling very important issue areas with the potential of influencing public and corporate policy.

The methodologies that are used in the research span a broad range from normative to descriptive, from metaethics to quantitative empirical studies. The growing legitimacy of applied ethics in the eyes of philosophers has prompted an ever-increasing scholarly effort in the normative research area. And as the field develops, the empirical researchers utilize methods of greater sophistication and complexity. A major flaw in an encouraging picture is an almost complete lack of integration between normative and descriptive research efforts.

Finally, the development of business ethics research in the future seems likely to follow two separate but possibly converging paths. The normative would develop into an *instructive* mode that would not only identify what is right but also be concerned with how right behavior is learned and effectively converted into business practice. In turn, the descriptive research would become *predictive* so that it could be implemented effectively in business decision making. For each stream of research the ultimate success will be measured by its positive impact on the practicing manager.

APPENDIX

Business Ethics Research Centers

Center for Business Ethics
Bentley College
Waltham, MA 02254

Center for Business, Society and Ethics
Department of Philosophy
Carlow College
Pittsburgh, PA 15213

Center for Ethics
Arizona State University
Tempe, AZ 85287

The Center for Ethics and Corporate Policy
637 South Dearborn Street
Chicago, IL 60605

Center for Ethics and Religious Values in Business
College of Business Administration
The University of Notre Dame
Notre Dame, IN 46556

Center for Ethics and Social Policy
Graduate Theological Union
2465 LeConte Ave.
Berkeley, CA 94709

Center for Professional Ethics Education
Manhattan College
Riverdale, NY 10471

Center for the Study of Applied Ethics
University of Virginia
Charlottesville, VA 22903

Center for the Study of Ethics in the Professions
Illinois Institute of Technology
Chicago, IL 60616

Center for the Study of Values
University of Delaware
Newark, DE 19716

Center for Values in Business
Loyola University of Chicago
Chicago, IL 60626

Ethics Resource Center Inc.
1025 Connecticut Avenue, N. W.
Washington, D. C. 20036

The Henry Salvatori Center
Claremont McKenna College
Claremont, CA 91711

The Institute for Business Ethics
De Paul University
25 East Jackson Blvd.
Chicago, IL 60604

Institute for the Study of Applied and Professional Ethics
Dartmouth College
Hanover, NH 03755

Program in Applied Ethics
Fairfield University
Fairfield, CT 06430-7524

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MORAL REASONING IN WORK-RELATED CONFLICTS

Robbin Derry

INTRODUCTION

Overview

The focus of this research is moral reasoning in organizations. The term "moral reasoning" as used here describes the mental and verbal process by which individuals deal with moral conflicts. The process includes a definition and framing of the conflict, as well as an evaluation and resolution of the conflict by the individual. An underlying assumption is that different people do experience moral conflicts differently, even when facing the same situation. This research examines how the moral reasoning process differs between individuals in work-related conflicts.

In order to develop a better understanding of the process of moral reasoning, this research tests the thesis (Gilligan, 1982) that there are two

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distinct methods of reasoning about moral conflicts: one based on morality as justice, the other based on morality as care. Organizational context is considered in relation to these different methods. Are different definitions of morality used in different work environments? Do individuals selectively vary their moral reasoning processes depending on their environment? Are the factors of sex, age, religious affiliation, length of time with the company, or position in the company related to the type of moral reasoning used by an individual? These questions are directly addressed.

Larger issues and questions that are the context of inquiry for this research are broad and far-reaching. Is there a difference between personal morality and professional morality? How can people uphold individual ethics or morality within a large, diverse group? Can members of an organization exhibit moral responsibility both for themselves and the group? Do individual values shape the organization or does the organization somehow shape the values of its members at work? These questions are beyond the scope of this inquiry.

Much has been written about whether moral responsibility can be attributed to an organization (Velasquez, 1983; Goodpaster & Matthews, 1982; Donaldson, 1982; DeGeorge, 1981-82; French, 1979). French argues that organizations can and should be seen as moral agents by virtue of policies, intentions, and actions that originate in the structure of the organization. Although individuals may be the moral actors, they are carrying out their roles and obligations within the corporation, rather than acting independently. Thus, moral responsibility in organizations is a collective responsibility. Velasquez counters French, contending that corporations are fictitious entities, that a corporation does not act separately from the actions of individual members, and therefore that a corporation cannot be morally responsible for the acts or intentions of its members. According to Velasquez, moral responsibility should be attributed to those members of the group who contributed to or performed the action in question, or knowingly refrained from preventing such an action when it was within their ability to do so. It is the individuals, not the organization, who are the moral agents.

Velasquez insists that he is not attempting to "reduce" a corporation to its members, and that he fully recognizes the system of relationships and constitutive rules which define an organization beyond a simple collection of individuals. While denying "a reductive view of corporate acts," he argues for "a reductive view of moral responsibility" (Velasquez, 1983, p. 18).

Although the research presented in this article focuses on the individual as moral agent, it does not assume that all moral responsibility in organizations should be attributed to the individual members. The group of structured relationships, which Velasquez claims play a social but not a

moral role, is seen here as contributing to the moral reasoning of managers. The mutual responsibilities and expectations embedded in corporate roles are an important consideration as the individual weighs his or her own values and attempts to distinguish between right and wrong courses of action. The structure of these relationships and the internal social context of the organization need to be examined the better to understand moral responsibility and moral agency. The individuals are the actors, but they consider the actions that are carried out only because the organizational backdrop demands and justifies them.

What policies and pressures in the organization foster ethical and unethical behavior? Conceptual research has historically shaped the debate on moral agency. Empirical research is needed to document and describe how and why moral decisions are made in organizations.

The research presented here examines the kinds of moral reasoning used by managers in work-related conflicts, such as being told to give a dishonest performance appraisal, reporting a fellow buyer taking bribes, terminating good employees, knowingly installing a faulty computer system, and discovering padded expense accounts. In these and other described dilemmas a fundamental question is, "What is a moral conflict for you?" The responses to this and to related questions have been coded and categorized in an attempt to understand better how individuals and organizations interact in the process of moral decision making.

Literature Review

Formal research in business ethics is just emerging from its first decade of serious treatment by scholars. Gaining credibility as a respectable field of study has been as much a part of the emergence as the struggle to forge communication links between the diverse areas of organizational studies, philosophy, education, theology, and business administration. There has been academic hesitation to confront "the way business is done." Good research instruments and well-defined constructs still need to be developed. However, ethical issues are now being confronted and discussed with increased openness in business and in classrooms (Beltramini, Peterson, & Kozmetsky, 1984; Ricklefs, 1983; Kiefer, 1983). More willingness to probe and extend the limits of understanding may result in better measurements and greater knowledge of the process of moral responsibility taking and decision making.

The growing interest in organizational ethics has focused on macro issues such as bribery in multinational business, environmental pollution, product quality, honesty in advertising, and price-fixing, as well as micro issues of bluffing, whistle-blowing, and others in which one or several employees may comply with certain patterns of ethical or unethical behavior. These

issues have been well documented in business ethics texts and anthologies reflecting the increasing recognition of ethics as an important component of business education (Matthews, Goodpaster, & Nash, 1985; Beauchamp & Bowie, 1983; Donaldson & Werhane, 1983; Bowie, 1982; DeGeorge, 1982; Velasquez, 1982). A great deal of the discussion of these macro and micro topics has taken a polemical approach to determine whether specific actions are ethical or not, and who should carry the responsibility for such actions.

The serious study of individual ethical decision making has been limited primarily to philosophical theorists, rather than empirical researchers. But current research in moral development offers a new methodology that may be useful in understanding how and why individuals make certain moral choices in conflict situations. Adapting these constructs and instruments to organizational settings would provide a springboard for exploring and beginning to understand what happens when the locus of moral responsibility within an organization is viewed as the individual. The research described here is based on the assumption that individual members of an organization can and should be assigned moral responsibility for decisions within the organizational environment.

The field of moral development has been long dominated by the research of Lawrence Kohlberg (1981). As early as 1958, Kohlberg conceptualized a stage theory of moral development. He then spent the following 20 years empirically validating and refining the proposed stages. Kohlberg's theory of moral development suggests that there are six universal and invariable stages through which individuals progress as their moral reasoning develops. These begin at Stage 1: The Stage of Punishment and Obedience, in which morality is perceived in these terms, and progress through to Stage 6: The Stage of Universal Ethical Principles, in which one reasons from the perspective of Kantian principles of justice. Kohlberg created hypothetical moral-dilemma scenarios as the basis of interviews that probed and assessed the participants' moral reasoning. The stage theory served to rank order different types of moral reasoning into levels Kohlberg claimed were sequentially "higher" in terms of individual cognitive development. His hypothetical dilemmas and stage theory provided the basis for continuing research into various cultures, enabling hierarchical comparisons of moral reasoning.

In 1977 Carol Gilligan challenged the field to consider the bias inherent in Kohlberg's model (Gilligan, 1977). The longitudinal sample that had given Kohlberg his critical data was entirely male. In conducting interviews for a project with Kohlberg, Gilligan found what she subsequently called "a different voice," the perspective, voiced more frequently by women, that morality was not defined by justice, fairness, or universal rights, as Kohlberg argued. Instead, this perspective described a morality based on care, on responsibility to others, on the continuity of interdependent re-

relationships. This orientation resulted in clearly different reasoning and ways of resolving moral conflict situations. Gilligan described it as a morality of care and suggested that it was a distinct moral orientation, not merely one of Kohlberg's stages of moral development.

Gilligan, Langdale, Lyons, and Murphy (1982) developed a research interview as the basis for examining the different types of moral reasoning proposed by Gilligan. The open-ended, semi-clinical interview pioneered by Piaget was adapted as a research tool. It is described by Lyons as follows:

The interview is designed to permit an interaction between two people that makes it possible to present as fully as possible how *one* of them thinks about some important issues. . . . Thus the set of questions put to a person in an interview is designed to allow the person to present his or her thinking and to elaborate the ways that issues are constructed and resolved. That purpose is achieved in the interaction between two people. For the interviewer, two things are necessary: (1) to listen, that is, to follow the train of thinking of the person interviewed; and, (2) to have—as Piaget suggests—some directing hypothesis to guide the probing (Lyons, 1984, pp. 2–4).

This interview format has been used to explore the hypothesis that men and women define moral issues differently and use different bases on which to reason them out (Gilligan, 1977, 1982). Langdale (1983) and Lyons (1983) found empirical results that verified Gilligan's thesis that two distinct moral orientations were significantly related to gender. In both studies the care orientation predominated in female thinking and the justice orientation predominated in male thinking. Langdale's study was designed to consider the relationship of age to primary moral orientation but no significant relationship was found. Johnston (1985), using fables as dilemmas to study the moral orientations of adolescents, found that boys and girls were able to articulate both care and justice as alternative solutions to the dilemmas posed. In their initial spontaneous response, the boys focused primarily on justice solutions, while the girls spontaneously offered care solutions in one fable and justice solutions in the other fable. These findings suggest that the use of different moral orientations is gender related but also context specific. None of the above studies suggests an absolute split along gender lines. In each there have been men using the care orientation and women using the justice orientation, but there has been a statistically significant relationship between gender and moral orientation.

Gilligan's hypothesis and Lyons' methodology (Lyons, 1983) suggest some interesting possibilities for research within organizations. This type of interview allows us to begin to explore how men and women define morality in the workplace. Before the level of moral responsibility within corporations can be measured, there needs to be some comprehension of the many different definitions of moral responsibility that are in operation in any given company. Gilligan managed to break through the assumption

that morality had been defined and all that was left was to measure it, or rank people on scales. The interview and coding scheme developed by Lyons offer the potential of interpreting and categorizing diverse views of morality and individualistic constructions of reality.

Hypotheses

The focus of this research is on the mode of reasoning individuals have used in making choices in work situations they define as morally conflictual. If managers and employees feel that individual morality is inappropriate in the workplace, then they are likely to develop a split morality, a complex system to deal with professional and personal issues separately.

The interviews described here address several research questions. What are the moral conflicts that arise for a group of first-level industrial managers? What are the considerations they use in attempting to resolve the conflicts? Do different groups of people experience clearly different types of moral conflicts within the same organization and managerial level? How can those groups be described?

The research applies Gilligan's theory in a corporate setting by testing the following hypotheses:

HO1: There are two distinct modes of moral reasoning used in work-related conflicts; these are consistent with Gilligan's descriptions of morality as justice and morality as care.

HO2: Morality as care is more frequently voiced by females and morality as justice is more frequently voiced by males in describing work-related moral conflicts.

The findings offer unique insights into what a sample of first-level managers in a major corporation perceive to be moral behavior. The interview data reflect the selective memories and the self-justifications of behavior of managers in difficult situations. Rather than using an arbitrary definition of morality to measure if managers are ethical, this research compares and categorizes the different ways that people apply their sense of morality on the job.

METHODOLOGY

Description of the Sample

The sample from which the data are derived is described below. Equal numbers of men and women were interviewed, ranging in age from 32 to 62. As would be expected from the recent increase of women in profes-

sional roles, the ages of the men are more evenly distributed, while the women in this position are grouped in the younger age brackets. This grade range is described as first-level managers, which includes positions of varying responsibility. There are approximately equal numbers of participants with managerial experience and those who are nonmanagement professionals. These staff professionals are within the same grade level as the managers, but they have chosen to work more independently, making their own contribution without managerial responsibilities. Some of them will move into managerial positions when the opportunity arises.

Data Gathering

The research hypotheses were tested by gathering interview data from the 40 participants and analyzing the data for categories defined by Gilligan (1982) and Lyons (1983).

The site selected is a major manufacturing facility of a Fortune 100 industrial corporation. With the approval of a senior vice president and the legal and personnel departments, the interviews were scheduled by the writer and the participants and were conducted on site during working hours. A research agreement secured anonymity for both the corporation and the individual participants.

In order to obtain equal numbers of male and female participants, the first level of managers and staff professionals was selected as the population. This is grade levels 10–12 of what will be referred to as the Johnson

Table 1. Sample Description

<i>Age</i>	<i>30–39</i>	<i>40–49</i>	<i>50–59</i>	<i>60–69</i>
Men (N = 20)	6	7	5	2
Women (N = 20)	13	5	2	0
	<i>Present or Past Managers</i>		<i>Non-Management Professionals</i>	
Men (N = 20)	11		9	
Women (N = 20)	9		11	
<i>Years at Steng</i>	<i>1–9</i>	<i>10–19</i>		<i>20–29</i>
Men (N = 20)	1	14		5
Women (N = 20)	7	13		0
<i>Religion</i>	<i>Catholic</i>	<i>Protestant</i>	<i>Jewish</i>	<i>None</i>
Men (N = 20)	10	8	0	2
Women (N = 20)	2	10	1	7

County employees of Steng Corporation. Both the county and the company names are pseudonyms. Two random sample programs were run, one on the males and one on the females of this population. Each potential participant was contacted by letter and by phone to determine whether he or she was interested and willing to participate in the research project. Those who were not interested in participating were replaced by further random selections from the population in order to maintain the desired level of 40 participants.

All participants were personally interviewed by the author. The interviews were tape recorded and transcribed. The transcriptions were then used as the basis for the coding analysis. Each interview lasted approximately 60–90 minutes.

The interview schedule is included in full in the appendix. These questions are adapted from Perry (1968) and Lyons (1983). Similar questions have been used in other research in conjunction with the coding scheme analysis (Langdale, 1983). Changes that are unique to this study are the aspects of relating the questions about moral conflict and moral definitions to work situations and to organizational roles and responsibilities. A few questions were added as a result of responses obtained in a previous pilot study. Several pieces of factual information were solicited and noted either before or during the interview. These included the age of the participant and the length of time employed by the corporation. The sex of the participant was also noted. At the end of each interview the participant was asked if he/she had any religious affiliation. This was noted in terms of denomination, and as current or past affiliation.

Data Analysis

The interviews were open-ended, semi-clinical interviews in which an individual presented an actual moral conflict he/she faced at work and described the situation, the conflict, how he/she evaluated what should be done, and how it was resolved.

Coding of the interview data followed Lyons' methodology. An overview of the coding scheme is presented here for a general understanding of the process.

The coding process is a form of content analysis. "Considerations" articulated by the individual are the unit of analysis for coding. A "consideration" is an idea presented by the individual as an element considered in making choices in each of three component stages. These are coded separately for the three dilemma components: (1) the construction of the dilemma, or what the person specifies as the conflict for him/her within the situation; (2) how the conflict was resolved; and (3) how the individual

evaluates the resolution. These three components are identified respectively as the problem, the resolution, and the evaluation.

Each consideration that the individual uses in the various aspects of the moral dilemma presentation is categorized as a *Consideration of Response (Care)*, or as a *Consideration of Rights (Justice)*, if it fits on the basis of these categories as elaborated below. If it fits neither of these categories, it is coded in a category labeled "Uncodable." If, in any interview research of this kind, a significant number of the considerations fall into the uncodable category, it may be evidence that the categories of Response and Rights do not adequately represent or describe the types of moral reasoning voiced by that sample.

The categorization of considerations as either Response or Rights follows these specifics (Lyons, 1983):

Considerations of Response (Care) are those in which an individual refers to:

1. General effects on others (unelaborated);
2. Maintenance or restoration of relationships; or response to another in recognition of the interdependence of people on one another;
3. The welfare/well-being of another or the avoidance of conflict; or, the alleviation of another's burden/hurt or suffering (physical or psychological);
4. The primacy of the "situation over the principle";
5. Care of the self; care of self versus care of others.

Consideration of Rights (Justice) are those in which an individual refers to:

1. General effects to self (unelaborated—but including "trouble"; how to decide);
2. Obligations, duty, or commitments;
3. Standards, rules, or principles for self or society; or considerations of fairness, that is, how one would like to be treated if in the other's place;
4. The primacy of the "principle over the situation";
5. The fact that others have their own contexts. (Each person must reason from the basis of his or her own experience and perspective on the world.)

In sum, the coder reads through the interview data and classifies the moral conflict presentation into sections corresponding to the problem, the resolution, and the evaluation. Each of these components is then

combed for considerations. Each consideration is coded into its proper category. All of the Rights considerations are totaled as are all of the Response considerations and the difference figured for an assessment of the predominant mode used (Lyons, 1982). In order to assign a number to the strength of the dominant mode, the percentages of each moral reasoning mode used are calculated within the total considerations. For example, a manager mentions 15 different considerations in the process of talking about the conflict, the resolution, and the evaluation. Eleven of them were rights considerations and four were response considerations. The manager is described as predominating in Rights reasoning in this situation with a measure of 73 percent.

For the interviews as a whole there is a resulting tally of predominant modes used by managers and others in their work-related conflicts. There is also a clear record of the strength of the predominant modes. These results were tested for differences related to gender, age, religious affiliation, length of time with the company, and whether the individual was a manager or a nonmanagement professional.

Internal Validity

The internal validity of this research is enhanced by the randomization of the sample from the population. However, it is threatened by the self-selection of the participants after randomization. Some members of the selected sample chose not to participate when they learned the topic of the research. Given the type of information being sought from the participants, it was necessary to have voluntary participation based on full knowledge of the research questions. Forcing people or enticing people to participate would not provide valid data on personal issues and conflicts.

It may be thought that the internal validity of the interview data is limited by lack of truth-telling or by one-sided perceptions of the situations being described. People may not convey the story "accurately" or their experience may have lacked some useful and critical information about the case. However, in this research what is most important is how the participants experienced the situation, what they chose to remember or to tell. It is this information that was evaluated, not a scientific description of the dilemma.

Reliability

The internal consistency of the interpretive methodology is supported by the process of establishing intercoder reliability. All of the conflict interviews were coded by the author, and 20 percent of those were independently coded by two other researchers. Agreement on interpretation

of considerations was measured by comparing the ratio of justice considerations to care considerations found by each coder. Agreement on these ratios was 95 percent. Agreement on the predominant mode used by each participant was unanimous among the coders.

There may be concerns that the interviewee's awareness of the tape recording biased the responses given. This did seem to influence what people chose to talk about, in that once the tape was turned off, people opened up and shared different, more personal conflicts or questions about morality than they had before. However, the interviews were preceded by a discussion of the research agreement and a promise of confidentiality for participants and for the corporation. With this assurance, most people seemed relaxed and trusting enough that they were willing to share specifics about events and people they work with during the taped interviews.

A Critique of the Methodology

In coding the interviews, it became clear that the coding system had been devised for interpreting data from a population of nonaffiliated individual persons. In an organizational setting, the key terms "self" and "other" take on multiple meanings, and those meanings are not always consistent with the meanings attributed to them in the coding scheme. A moral conflict may arise between what is good for "self" and what is good for "other," but "self" in this corporate setting might be the individual, the immediate department, or the organization as a whole; and "other" could range from an employee to a boss, another department, another organization, a supplier, or, as in one dilemma discussion, a developing country. With this range of meanings it is hard to apply the concepts of "care for other" and "responding to another in their terms" consistently with the meaning of the "other" in the coding scheme.

This range of relationships and interactions also sheds light on why there were almost no predominantly care-oriented dilemmas. It is difficult in the midst of business policy decisions to evoke the kind of concern that one might have for another individual and direct that concern toward a rival business or even a corporate customer. Honesty, fairness, and justice can be applied in these situations more readily than concern for feelings. The "other" might not have any feelings. Many managerial decisions relate to intercorporate deals. The morality of care does not make a great deal of sense unless one is dealing with individual persons. Certainly managers and nonmanagement professionals do deal with each other daily on a one-to-one basis and concern for the individual arises. But the coding scheme lacks the vocabulary and categories that would apply more precisely to the conflicts that arise in a corporate environment.

ANALYSIS

This section and those that follow use a vocabulary which has emerged among researchers in the course of studying Gilligan's thesis (1982). The terms "rights," "rules," and "justice" are used to describe the orientation of reasoning about morality as justice. In contrast, the terms "care" and "response" are used to describe the orientation of morality as care. As discussed earlier, the justice orientation underlies the traditional approach to analyzing moral reasoning (Kohlberg, 1971), while the care orientation is the "different voice" presented by Gilligan (1977).

Results

The first finding became evident in the process of conducting the interviews. When asked to describe a moral conflict in their work life, an unexpected number of the participants said they had "never faced" a moral conflict at work. This response required an acknowledgement of an unarticulated assumption of this research. The assumption was: people experience moral conflicts at work. This was true for only two-thirds of the participants. This proportion may be higher than the population from which the sample is derived. Several people initially selected in the random sample declined to be interviewed on the basis that they had nothing to talk about. Of the 40 sampled participants, 67.5 percent had a work-related moral conflict, while 32.5 percent said they experienced no work-related moral conflict. The demographic characteristics of the "No Conflict" group of interviewees are shown in Table 2.

As may be evident by comparing the "no conflict" group with the entire sample, there are no distinguishing characteristics of this group, and no statistically significant correlations between demographic variables and the groups of participants who had or did not have a moral conflict.

The second major finding was the moral orientations of the participants who did face moral conflicts at work. All but one described these conflicts and their resolution of them in rights terms. The data did not fall into two groups, one using predominantly care reasoning and the other using predominantly justice reasoning. Thus the demographic data could not be tested for correlations with these expected but not discovered groups. In order to present the data in a meaningful way, the percentage of rights considerations within the total number of considerations was estimated for each participant. Thus the numbers presented in Table 3 indicate the strength of the rights or justice reasoning used by these managers and nonmanagers. The one participant who used rights considerations less than 50 percent is the individual whose discussion focused on care issues

Table 2. Characteristics of Participants Who Experienced No Moral Conflicts

Age		30-39	40-49	50-59	60-69
Men (N = 6)		2	2	0	2
Women (N = 7)		4	2	1	0
		Past or Present Managers		Non-Management Professionals	
Men (N = 6)		1		5	
Women (N = 7)		3		4	
Years at Steng		1-9	10-19	20-29	
Men (N = 6)		1	3	2	
Women (N = 7)		1	6	0	
Religion		Catholic	Protestant	None	
Men (N = 6)		3	2	1	
Women (N = 7)		1	2	4	

and reasoning. His score was 66.7 percent care or 33.3 percent rights. Thus the rights-focused participants were 13 men and 13 women.

Although the sample size dwindled due to the conflict/no conflict grouping, there are some differences that seem apparent from looking at the data in this way. In this sample, more men used exclusively rights reasoning (the 100 percent category), and correspondingly, more women voiced some care issues within the predominantly rights discussion of their conflicts. However, there were no statistically significant correlations between the strength of the rights reasoning and the demographic variables: gender, age, length of time at Steng, managerial position, or religion.

In summary the major findings were:

1. One third of the participants said they had never faced a moral conflict at work. There were no strong demographic characteristics identified with this group.

Table 3. Percentage of Rights Considerations Used

	<50%	50-59%	60-69%	70-79%	80-89%	90-99%	100%
Men (N = 14)	1	0	3	2	1	1	6
Women (N = 13)	0	1	3	3	3	2	1

2. All but one of the participants who described a moral conflict at work did so with primarily rights reasoning. The one exception was a male who used care reasoning.
3. There were no significant correlations between the demographic variables and the strength of the rights orientation.

INTERPRETATIONS AND EXPLANATIONS

This section interprets the findings described above in light of the contextual setting of the organization and the interviews as a whole. Consideration of the organization culture and reward system, patterns in the kinds of conflicts which people described, and evidence of some trends among the "no conflict" group all offer possible explanations of the results. It should be understood that the interpretations and explanations elaborated in this section are the most plausible based on prior research and theories of moral decision making. These interpretations should be subjected to appropriate field research.

Dominant Use of the Justice Orientation

Why is there an overwhelming use of the moral orientation of rights, rules, and justice among the managers and nonmanagement professionals interviewed? Fundamentally, a corporation is a group of people joined together for the purpose of accomplishing some defined, common goals. Each person has an assigned role to play in the accomplishment of those goals. Everyone expects others to fulfill their roles as organizational members. Steng has a "team" culture. Although there have been significant layoffs within the past decade, the people who have lived through the belt-tightening times are loyal to the organization and its ideals. They sometimes have conflicts with their immediate supervisors and their directives, but almost to a person, they express great faith in the driving purpose, goals, and intentions of top management. There is a sense of belonging among Steng employees. It is for this sense as well as for their own job security that they want Steng to survive, to do well in the face of growing national and international competition. Some of the conflict discussions gave evidence of a feeling of personal responsibility for Steng's image in the community at large. This type of strong culture builds, often intentionally, a deeply held commitment to the organization, a clear sense of one's role, duties, and obligations (Katz and Kahn, 1978; McCoy, 1985). Certainty about these roles and obligations seemed to underlie many of the considerations people voiced in resolving their moral dilemmas. The following excerpts from three different participants demonstrate this point.

A young woman, struggling with a proposed "deal" which would benefit her superior but would detract from organizational productivity, described her situation:

I felt that I would be, it's almost like I would be drawing money out of the company and not giving the company anything back, except protecting this particular individual. So, I felt that my personal sense of values was being violated, and my notion of how to conduct business efficiently and effectively was being violated.

An experienced manager described a repeated conflict:

There are a number of times when you know as manager that a particular individual has been identified to be laid off . . . and everyday, and it may go on for several weeks, you have to come to work and acknowledge the person, deal with them, work with them, knowing that at a given point in time they are going to be out of a job literally. And yet, you can't prepare them, because your job as a manager is to try to get the pieces done, work with the company, and maintain the morale. It's a moral difficulty because I always feel that if I know that a particular individual is going to have something like that happen, that I should tell him. . . . However I also understand . . . that in the business we do need his services for three more months.

A nonmanagement professional felt a strong obligation not to install a faulty computer system despite pressure to conceal the problems and begin operations:

My conflict was, I knew there was going to be trouble and they weren't going to like it, but it was what I felt was right as far as the company benefit. . . . It was important because the product that we were going to put in would have failed and caused a lot of problems, and the union people may not have gotten their paychecks because of it and I won't do that. I take good care of my systems. I'm not going to do anything that's going to adversely affect the people that I am being paid to support, which is the people out on the floor.

Reasoning about moral conflicts from this perspective of one's role and obligations within the corporation falls within Lyons' category of rules, rights, and justice. One is following a clearly defined set of rules. They may not be written, and they are often broader than one's job description, but they are the implicit commitment to the achievement of the group's purpose. This commitment is a fact of life among most of Steng's managers. It is not surprising, then, that it is a dominant factor in the reasoning of these managers and staff professionals. At work, they are committed to their organization. If a conflict arises, they consider the impact on the organization, themselves, and other people who might be involved, in approximately that order. This is not to say that they take care of the organization before they take care of themselves, but their initial reasoning process, about moral issues as about any other problems, is "What should

I do as a Steng Manager/Buyer/Engineer/Foreman?" One engineer put it this way:

A situation comes up, if there are moral aspects to it, I think the first approach is to handle it like you are handling other situations so it's not really a conflict or problem. It's part of the decision or behavior requirement.

In short, the individual manager's (and other professional's) commitment to that person's role within the corporation shapes his or her reasoning about work-related conflicts, including moral conflicts.

Another aspect of the individual's role in the organization is that these people get rewarded for following the rules, for making fair and just decisions. They do not get rewarded for being caring, building strong relationships at work, or for alleviating others' burdens. Steng is not a social service organization. It is not in operation to make its workers or customers feel cared for. Steng is a profit-dependent corporation, striving to manufacture reliable, competitive products. It rewards its employees for goal achievement. Following a behaviorist argument, the corporation builds in rule-following by its reward structure, and discourages behavior focused on caring and responding to other's needs in a personal way.

This observation suggests a phenomenon that is entirely consistent with popular literature about survival in the corporate arena as a matter of learning and playing by the "rules of the game." Those who can play by the corporate rules stay in "the game," those who can't, or don't want to, leave (Maccoby, 1976). By the time people have made it to a managerial level at Steng, they have for the most part agreed to the rules of the game, or they have opted out. Thus there is a self-selection factor in this sample. The sample is not representative of the general population. It is a group of men and women who have proven themselves good corporate players. Therefore, these organizational rules become the moral referent for Steng's managers and employees, explaining their reliance on a rights, rules, and justice approach to moral conflicts at work.

Conception of Morality

As is evident from the interview schedule's questions, a great deal more data was gathered than is presented here. Several questions focused on the meaning of morality. While a full exploration of all the data is beyond the scope of this paper, it is useful to recognize the predominant conception of morality in the participants' dilemmas. In analysing ethical dilemmas it can be useful to distinguish between moral rules and moral ideals (Hennessey & Gert, 1985). The major theme throughout these dilemma discussions was a concern for duty. The important moral rule was duty to

the organization or to a boss. This was seen in terms of expected loyalty, obedience, corporate political games, and maintaining the hierarchical structure. The moral obligation of duty often took precedence over other moral rules (such as do not deceive in a contract negotiation) and restrained individuals from acting on the basis of their own moral ideals (such as prevent trauma of job loss). Future research would do well to probe the moral implications of the concept of duty, and its relationship to other moral obligations.

Gender Differences and the Lack Thereof

Why is there no significant gender difference in the moral reasoning used in these work conflicts, as one would expect from Gilligan's theory and other recent research? Lifton (1985) examines the relation of sex, gender, and personality to moral development, highlighting a useful distinction between physiological and psychological differences between men and women. In this study of moral development in adolescents and adults, Lifton finds no sex (physiological) differences but does find gender (psychological) differences. He posits that while biology has little or nothing to do with moral development, socialization does play a role. This is not inconsistent with the Gilligan hypothesis, which is grounded in the developmental theories of separation and individuation (Gilligan, 1982). Gilligan suggests that the socialization process, reflected in moral reasoning, begins at infancy and shapes the child/adolescent/adult. Lifton argues that social roles and expectations contribute to moral development and these may be shaped in adolescence and adulthood.

The findings described here suggest that whatever gender differences have been found in other research may be context specific. If there is a *general* difference between men and women, it does not carry over into strong organizational cultures where both women and men are trained to think and judge as corporate members. In such settings, either the "carers" have been selected out or they have learned to use the reasoning dominant within the organization. The voice of care, responding to others in their terms, maintaining relationships for the sake of interdependence, and alleviating the burdens or suffering of another, does not have a big role in corporate culture.

Looking back to the data, it is clear that most people voiced some care issues along with their rights considerations. This confirms the earlier findings that many people have the ability to reason either in the justice mode or the care mode (Johnston, 1985). If men and women do have the ability to use both moral orientations and the ability to choose which one is most appropriate in different settings (though not necessarily in the vocabulary of moral development theory or philosophy), then the smart

business players should figure out early on which mode is most credible within their work environment. People who use a moral reasoning of care or response in their personal life may simply know not to use it at work. Individuals who do not have the ability or willingness to use rights reasoning do not stay very long or do not advance in a predominantly rights and rules environment.

These explanations apply equally well to men as to women. But it is the women whom one would have expected to use the care reasoning, given the earlier findings. However, in the last decade women have been coached from all sides to succeed in business, to make it big, to compete, to increase the ranks of corporate women, in short to learn the rules by which men have succeeded, and to play the game aggressively (Hennig & Jardim, 1977). It should be no surprise that first-level managers, women in their thirties and forties, are using the same vocabulary, the same thought processes as their male counterparts. They have learned what is required.

Those women and men who have the ability and interest to reason as corporate members are building on and strengthening that ability. It is important to interpret the findings of this study in the context of the complex demands of corporate life, as well as the context of society's current interpretation of success and its requirements.

An additional interpretation of the strong rights orientation voiced in these interviews was suggested by the verifying coders. Several of the participants seemed to be describing issues that were fundamentally care concerns but justifying them in rights terms. Perhaps in the Steng environment they had to justify their conflicts in those terms. Some examples demonstrate this point.

Actually the conflict for me was how I knew that the right thing to do was to let him go [to another job within Steng] and from his standpoint, but for me I might wind up losing a valuable employee in the department and he has been a good employee. . . . If I let the guy go, and he accepts before the promotion here comes through, then I would have looked bad in terms of my management to say, "Hey, you've got this guy that's a valuable man and you let the guy skip and he's going to another department. So why did you let him do it?" . . . I just really weighed the fact that how would I feel if I was in his shoes? How would I feel if I was cut off from pursuing an opportunity in another area that I was interested in?

In this excerpt the manager's concern is about how to do what is right for an employee from the employee's perspective. This is a care consideration. But other considerations come into play to weigh the balance towards a justice focus: What would my managers say? (a duty or role consideration); How would I feel if I were in his shoes? (fairness, justice as the golden rule); I might lose a valuable resource in the department

(effects to self). This case could be seen as one in which the manager is predominantly rights or justice oriented with some care considerations taken into account. This is strictly consistent with the coding results. Alternatively the theory above suggests that the major issue of concern is a care issue but the setting for the conflict requires that it be reasoned out in justice terms. The person may tend more toward a care orientation in defining moral dilemmas, but the work environment imposes certain modes of reasoning and decision making. This perspective is supported by England, who argues that individual managers come to work with certain "intended values," but the expression of these values is blocked by organizational factors (England, 1975). In this case the manager may have attached a strong personal value to providing support and encouragement to his employee, but the Steng environment did not permit the expression of that value except as it fit the dominant logic of fairness.

Another example of interwoven care and justice considerations follows:

Well, the part of it that was the conflict was knowing the person personally. Knowing that they were on this list to be laid off and either wanting to tell them that maybe you ought to go here and look or maybe you need to do something else. Somehow in my mind you want to be able to prepare people for the worst if you can. But yet you're privy to information that you really just can't divulge to them. . . . Some of those things [I considered] were: Can I help save that person? Is there anything that I can do to help save that person's job? If there is, I want to do it. . . . I only had the conflict if I thought it was an unfair situation. If I thought the decision was a good one, was a fair decision, I didn't have a conflict with it. . . . In some instances, they were not chosen by the same criteria. Sometimes you just knew that, so that's what I was considering unfair. . . . I have a very humanistic point of view when it comes to people, I don't think people's basic human rights ought to be violated. Losing a job is not necessarily a basic human right, but how you treat a person I think is what is their basic human right.

At first glance this example gives the impression of an extremely care-oriented person. However the coding process revealed a strong concern for fairness in performance evaluations. This becomes an overriding factor in determining the limits of "caring." It is quite clear from the excerpt that there are motivations to help others, to alleviate their burdens, "to save people," and to express concern for their welfare, all of which are usually signs of a care orientation. But in the corporate world, these are often subordinated to one's role obligations in the corporation.

The theoretical possibility explored here is that some managers are basically care oriented in their moral reasoning, but in the work environment they are required or trained to use justice reasoning even in conflicts that arise from care concerns. This differs from an interpretation that suggests that the managers and other professionals are justice-oriented people, by nature, by self-selection, or by early training. From this study it is not

clear which of these theories more accurately describes the sample. While the work environment theory has some face validity, it is important to guard against interpretation of results in ways that merely explain away inconsistencies with past findings, in an unwillingness to seriously question the hypotheses.

No Perceived Moral Conflicts at Work

Why did 33 percent of the managers and nonmanagement professionals interviewed "never face" a moral conflict at work? Looking at these data from another perspective, we see that 67 percent of the managers and professionals interviewed *did* face moral conflicts at work. That is a significant number, especially in light of those who claim that making moral decisions is not part of the manager's job. This finding itself would be worthy of study in other organizations and work environments.

But many of those who did not feel they had faced a moral conflict at work did describe, sometimes almost incidentally, personal moral conflicts experienced outside work. These included such dilemmas as how to care for a handicapped son, whether continuing to work would allow for adequate attention for a new baby, how to spend enough time with a close family member dying of cancer, a love affair and the struggle to maintain the marital relationship, and whether to accept a new job which would mean moving away from family. Most of these descriptions were prefaced by "I can't think of any conflicts at work, but the biggest moral conflict in my life has been . . ." These personal conflicts were not solicited in the interviews and many of them were not discussed in depth.

The message about work seemed to be: "I do my job well, sometimes I disagree with people, sometimes I have to make tough decisions, but I follow the rules, and I respect the corporation. Moral conflicts just don't come up for me." These people do face moral conflicts in their lives, but say they do not at work. Morality to them may mean something different, defined in personal terms, carried out in private rather than in professional life. If a manager's moral reasoning orientation was care-focused, but that manager had learned not to act on those concerns at work, then moral conflicts might be seen only in personal life, and not in the professional setting. Decisions at work are made on the basis of efficiency and effectiveness. For some people and some positions this clearly works and is the best way for them to operate. This approach may require an ability to wear different moral hats at home and at work.

Overall impressions from the interviews offer several additional explanations of the "no conflict" group. No one explanation fits the entire group.

1. Rules have been thought out in advance so as to guard against moral dilemmas, e.g., I never accept gifts from vendors, I would never turn in a fellow buyer for taking gifts, I would never lie to make schedule, I always insist that my staff account for expenses precisely.

2. A few people suggested that because they *did not* have strong black and white rules about morality they did not "go around imposing my standards on others" and therefore did not come into conflict with others' decisions.

3. As nonmanagers, some participants felt that the lack of managerial responsibility protected them from moral conflicts because "those are almost always related to dealing with other people."

4. The last interview question asked about behavior and choice in a moral conflict situation was "When you think back on the situation now, do you think about it differently?" Some people said, in effect, "No, I'm sure I did the right thing." Others said, "I would have handled it differently. I wouldn't have gone to my boss because nothing happened. They don't like you to make trouble, they don't want to know about conflicts. The person I reported it to said to me, 'This conversation never happened.' " An important question is raised by these statements. Are people encouraged not to have moral conflicts at work by the response (or lack of response) they receive in trying to resolve them?

These are brief initial interpretations of the data gathered. They suggest that more probing and research are required. Additional questions in the interview format gathered information on self-description, definitions of success, types of relationships built at work, and definitions of morality and responsibility. The data from these questions, to be reported elsewhere, may help explain some of the findings discussed here.

CONCLUSION

The data presented here do not support Gilligan's thesis (1982) that the two modes of moral reasoning, justice and care, are gender related. In this corporate setting those differences were not in evidence. This may indicate that if such gender differences do exist in the general population, they are not so deeply ingrained that they cannot be adapted or altered to fit the requirements of a strong organizational culture. While Gilligan suggests that the socialization process of infants and children results in these differing moral orientations, it appears that the different modes of reasoning are learnable later in life in response to environmental stimuli.

Each individual's conception of morality is a rich fabric of perceptions, experiences, values, and needs. Interview research is a way of gathering

and comparing many tapestries. The use of considerations in the coding process enables a researcher to pull apart a few of the different threads and examine their unique textures. Duty was one such thread appearing frequently in the interviews. It may be the most dominant texture of morality in contemporary organizational life. But to understand moral reasoning, the threads must be seen within the complexity of the entire design.

For the field of business ethics, this research is a strong urging to consider and recognize the range of moral sense-making within corporations. Much of the prior research has focused on the responsibility of the organization to its external constituencies. There also is a great need to articulate the mutual responsibility within organizations and the moral conflicts that arise in routine operations and decisions. Occasionally moral dilemmas occur with national or global implications, giving rise to scandal and scrutiny. But for many more managers there are difficult moral issues occurring in the daily processes of organizational life.

APPENDIX

The Interview Questions

I. *Introduction*

Looking back over the past year at work, what stays with you? (from W. Perry, 1968)

II. *Self-Concept*: (transition: Having talked briefly about your work life in the past year, now I would like to ask you how you think about yourself.)

1. How would you describe yourself to yourself?
2. Is the way you see yourself now different from the way you saw yourself in the past? How? What led to the change?

III. *Moral Conflict and Choice*: (All people have had the experience of being in situations where they had to make a decision but weren't sure what was the right thing to do.)

1. Have you ever faced a moral dilemma in your work life? or Have you ever been in a situation at work where you faced a moral conflict and had to make a decision but you weren't sure what was the right thing to do?

(Construction of the Problem)

1. What was the situation?
2. What was the conflict for you in that situation?

(Resolution of the Problem)

1. In thinking about what to do, what did you consider? Why? Anything else?

Any other things you considered in trying to decide what to do?

(The Decision/Choice)

1. What did you decide to do?
2. What happened?

(Evaluation of the Resolution)

1. Do you think that was the right thing to do? Why/why not?
2. (If it was a while ago) When you think back about the decision now, do you think about it in a different way? How? What led to the change?
3. Did you consider this situation you've described as a moral problem?

(Concept of Morality)

1. What does morality mean to you?
2. Does professional morality differ from personal morality for you?
3. What makes something a moral problem for you?
4. What does responsibility mean to you?
5. When responsibility to oneself and to others conflict, how should one choose?
6. Have you ever felt especially responsible for upholding the organization's rules or standards?
7. Are there times when you feel that your moral standards are different from the corporation's standards or expectations of behavior?
8. When responsibility to oneself and to the organization conflict, how should one choose?

IV. *Relationships*

1. Can you tell me about a relationship that has been important in your professional life?
2. What about the relationship makes it important?
3. Has that relationship changed over time? In what ways? What led to the change?
4. Do you (or did you) and _____ ever disagree?
Do you voice your disagreement? Why? Why not?
5. Do you and _____ depend on each other?
6. Are you more independent or dependent?
What does dependence mean to you?
What does independence mean to you?

- V. At the beginning of this interview I asked you about how you see yourself now, in the present. Now I want to ask:
1. What will you need to have done in order to see yourself and your life as successful?
 2. Does being successful in your life mean something different to you now, at this stage in your career, than it used to? What do you think led to those changes?

Interview questions adapted from N. Lyons, 1983

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A THEORY AND MEASURE OF ETHICAL CLIMATE IN ORGANIZATIONS

Bart Victor and John B. Cullen

Ultimately, the behavior of individuals produces a firm's corporate ethics. In that sense, any study of corporate ethics must include a study of the ethics of the employees of a firm. The ethics of employees result, to some extent, from their own moral characters developed prior to organizational entry. However, the ethics of employees also result partly from an adherence to the prevailing values of the organization (Waters, 1978; Clinard, 1983). Once in an organization, employees learn "the right way" of behaving through formal and informal socialization. That is, they learn, in varying degrees, the values that are operative and rewarded in their organizations. Those organizational values that pertain to ethical issues and identify what is ethically correct then contribute to an ethical climate in the organization. Thus, the ethical climate of a corporation, the shared

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perceptions of what is ethically correct behavior and how ethical issues should be handled, both reflects and helps define the ethics of a corporation.

ETHICAL CLIMATE

This paper presents a conceptual and empirical identification of ethical climates within organizations. Following what Schneider (1983:113) called a "climate approach to research," the paper (1) introduces a new instrument for measuring perceptions of ethical climate by organizational members and (2) tests the existence of nine a priori hypothesized types of ethical climate. A basic assumption guides the design: Ethical criteria are prevalent and significant in corporate decision making. That is, organizational decision making frequently gives rise to questions of what "ought to be" and such questions must be resolved with reference to more than statements of fact.

Ethical Climate as a Work Climate

Ethical climate in organizations is one dimension of the work climate. As such, the concept of ethical climate has many of the same strengths and weaknesses associated with more general conceptualizations of work climate. Major issues pertaining to the general work climate literature are reviewed below in light of how they inform this study's particular use of the ethical climate concept. There exist over a dozen extensive reviews of work climate research since the 1960s, attesting to the impact of the concept. Field and Abelson (1982), Schneider (1983), and Schneider and Reichers (1983) present more recent reviews.

Research shows that work climates foster numerous outcomes of theoretical and practical relevance. Some types of work climate provide psychological environments conducive to increased managerial job performance and satisfaction, especially when the climates are congruent with managerial needs (Downey, Hellriegel, & Slocum, 1975; Pritchard & Karasick, 1973). Other aspects of organizations affected by various work climates include effectiveness of management by objectives (Hollman, 1976), research and development innovation (Abbey & Dickson, 1983), and safety (Zohar, 1980). Such findings suggest the possibility that ethical behavior also is affected directly by ethical climates through similar psychological and social psychological processes.

The attempt to achieve balance with their psychological environments is a simple thesis providing an explanation of why work climates affect

behavioral and attitudinal outcomes (Schneider, 1975). People adapt to their environments by learning the appropriate behavior through climate perceptions, especially in early organizational socialization (Schneider, 1975; Schneider & Reichers, 1983). Cognitive maps formed from climate perceptions aid in the "sense-making" (Weick, 1979) process of learning a new organizational setting (Field & Abelson, 1982). Climate perceptions also produce behavioral outcomes by informing individuals that specific types of behavior will lead to successful achievement of individual and organizational goals (Field & Abelson, 1982; Schneider & Reichers, 1983).

Climate Research

Although some of the earliest climate research (Lewin, Lippitt, & White, 1939) studied group values such as the acceptability of aggression, the dominant research trend has since virtually ignored those dimensions of climate that provide work members with guides to ethical behavior. Most often studied are perceptions of autonomy/control, degree of structure, nature of rewards, and consideration, warmth, and support (Campbell, Dunnette, Lawler, & Weick, 1970). Schneider (1975) argued persuasively, however, that there exist so many organizational climates that researchers must avoid a search for a general climate and select those dimensions for study that relate to specific variables. Examples have ranged from climates for conflict resolution (Renwick, 1975) to climates for creativity (Taylor, 1972). Thus, since the concern here is how individuals behave and make decisions from an ethical and moral perspective, the focus is on those aspects of work climate that guide organizational members in the determination of right and wrong behavior at work.

Group or organizational climate is a construct based on the aggregated perceptions of individuals. Schneider (1975:474), for example, defined climate as perceptions that "are psychologically meaningful molar descriptions that people can agree characterize a system's practices and procedures." However, because individuals are usually queried separately concerning their climate perceptions, some critics (Woodman & King, 1978) note that confusion exists concerning the level of analysis—individual or organizational—appropriate for climate research. Climate researchers counter by treating the problem of aggregation similar to the practices of most macro organizational behavior researchers (e.g., Blau, 1965). Individual perceptions of climate are combined to form the measure of group or organizational climate. Thus, for example, James and Jones (1974) argued that two types of climates exist, psychological and organizational. The former is an individual's perception of practices and procedures, while the latter is the *average* or *typical* way the organization is perceived by

group members. More recent theorists (Field & Abelson, 1982) also see climate data having a range of levels of analysis—the individual's perceptions and aggregations to the work group or organizational level.

Work climates, and especially ethical work climates, represent components of some views of organizational culture (Ashforth, 1985; Sathe, 1983). Much like climate, organizational culture can be viewed as an internal system characterized by shared beliefs and values that, among other functions, serve to shape and guide behavior (Smircich, 1983). Although organizational culture gives rise to both overt and taken-for-granted values (Schein, 1984), climate focuses on the values and beliefs that are known and perceived by work group and/or organization members. One way values and beliefs become known is through the patterns of observable behavior that result from organizational culture. Such behavior becomes part of the "raw material" that individuals use to develop climate perceptions (Ashforth, 1985).

Dimensions of Ethical Climate: Types of Criteria

In his theory of moral development in individuals, Kohlberg (1981) proposes that as individuals develop morally they use different types of ethical criteria and display distinct types of moral reasoning. By moral reasoning, Kohlberg means prescriptive reasoning as to how moral dilemmas "ought" to be resolved. This reasoning is contrasted with cognitive reasoning as to fact, or in the case of moral dilemmas, how things "will" be resolved.

Using a developmental schema based on the theories of Piaget (1932), Kohlberg posits that moral development follows a multi-stage sequence. It progresses from reasoning governed by fear of punishment, to concern for others, to concern for universal rights and humanity as a whole. In this progression, Kohlberg (1981) specifies three major types of ethical standards: self-interest, caring, and principle. These three standards also reflect three major classes of ethical theory: egoism, utilitarianism, and deontology (Williams, 1985, Fritzsche & Becker, 1984). They may be distinguished in terms of their basic motives, i.e., maximizing one's own interests, maximizing joint interests, or adherence to universal principles respectively. In the present investigation of corporate ethical climate, the beginning assumption was that corporate ethical climates also evolve along a dimension similar to Kohlberg's ethical standards and the three types of ethical theory.

Both Kohlberg's theory of moral development and much of moral philosophy share the assumption that these types of ethical theory or criteria are importantly distinct. That is, according to Kohlberg (1981), Gilligan (1982), Haan, Aerts, and Cooper (1985), and others who study individual ethical reasoning, the types of ethical reasoning are relatively incompatible.

People who are "caring" tend to be less cognizant of law or rules. To some extent they also may be less amenable to arguments employing rule or principle. In contrast, people who are "principled" tend to be less sensitive to particular and temporal effects on others. If the incompatibility of ethical reasoning is the case for individuals, then organizational (or at least work group) ethical climates might also be expected to develop relatively distinct and congruent forms. That is, organizations, like individuals, may be prototypically "caring," "principled," or "instrumental" places.

As with individuals who use one predominant type of ethical reasoning, the dominant type of ethical climate in an organization may influence the types of ethical conflicts considered, the process by which such conflicts are resolved, and the characteristics of their resolution. For example, if an organization had what might be labeled a "caring" climate, then the well-being of others should be the dominant criterion used to identify and solve ethical problems. This might be contrasted with a "principled" climate in which rules or law are the dominant criteria, or an "instrumental" climate where self-interest is the dominant criterion.

Dimensions of Ethical Climate: Level of Analysis

In addition to types of ethical criteria, the level of ethical analysis or concern may help distinguish the types of ethical climates found in organizations. The level of analysis ranges from the individual to the broadest of social systems. It identifies the referent group used for expressing or contemplating concern in making ethical judgments.

Kohlberg (1981) in his stages of ethical development makes such a distinction between loci or level of ethical concern. He describes each stage in terms of how his types of ethical criteria (noted above) are applied using a particular level of social perspective or level of ethical concern (Haan, Aerts, & Cooper, 1985). In the early stages, for example, the locus is the individual. Each of the ethical criteria is then considered in the context of the individual. Rights are defined in terms of exchange between oneself and another; caring is focused on a particular individual other. As moral development progresses, Kohlberg (1981) sees a shift in levels of ethical concern to a social system and ultimately to humanity as a whole. When such levels of ethical analysis are applied to organizations, they provide a basis for distinguishing levels of ethical concern within work climates.

Support for considering different levels of analysis as a source for normative principles and group identification in organizations also can be found in theories of organizational roles and reference groups. Merton and others studying roles in organizations have identified different ref-

erence groups that help define the behavior and attitudes associated with different types of organizational roles. For example, Merton (1957) makes a distinction between a local and a cosmopolitan role. In the former case, the reference groups or sources of role definition are contained within the organization. In the latter case, the sources of role definition are external to the organization. Gouldner (1957) applies this distinction to distinguish the professional from the "organization man." Merton (1957) also sees an essential tension between these role foci. That is, cosmopolitan roles contain expectations for behavior and attitudes that are quite distinct from the expectations for local roles.

Thus, it appears reasonable that organizational ethical climates may be distinguished in terms of level of ethical analysis. That is, there may be climates that are highly individualistic, climates that are organizational, and climates that are more cosmopolitan in their focus. It also may be

		Level of Analysis		
		Individual (I)	Local (L)	Cosmopolitan (C)
Type of Criteria	Egoistic (E)	e.g. Self Interest	e.g. Company Interest	e.g. Efficiency
	Utilitarian (U)	e.g. Friendship	e.g. Team Play	e.g. Social Responsibility
	Principle (P)	e.g. Personal Morality	e.g. Rules and Procedures	e.g. The Law or Professional Code

Figure 1. Ethical Climate Typology

expected that there is some degree of mutual exclusion between these foci. Organizations that have individualistic or local ethical climates may not be as attentive to larger social concerns as organizations with cosmopolitan orientations. For example, a tobacco company may have a "caring" climate, but the boundaries of that caring may not extend to the consumers of the company's product. Similarly, a firm might be quite rule-oriented or principled, yet regularly violate the law.

There then appear to be two dimensions on which organizational ethical climates may vary: the type of criteria and the level of ethical analysis. These two dimensions concomitantly describe a 3×3 matrix of nine theoretically possible ethical climates (see Figure 1). The first objective of our program of research is to investigate the nature of ethical climates in an effort to confirm or disconfirm the typology described in Figure 1.

METHOD

The current study was designed to explore: (1) the dimensionality of corporate ethical climate and (2) the presence of identifiable ethical climates in different organizations and occupational groups.

Procedures

First, a questionnaire was developed to measure the nine theoretical types of ethical climate shown in the typology above. Second, a factor analysis was conducted to explore the dimensionality of the ethical climate conceptualization. Third, discriminant analysis, classification analysis, and analysis of variance were used to compare four different groups for the presence of unique ethical climates. Details of the analytical procedures are discussed in the Results Section.

Climate Measurement

Following Schneider's (1983:111) "climate approach" to research, a questionnaire was developed to tap respondent perceptions concerning how the members of their organizations deal with ethical decision making. The questionnaire specified various "events, practices, and procedures" requiring ethical criteria for decision making. In essence, those completing the questionnaire were asked to act as organizational informants.

Four Likert-type items were written for each of the nine theoretical types of moral climate shown in Figure 1. These items were included in a pretest questionnaire administered to 35 university faculty. Pretest respondents were asked to complete the questionnaire and note any am-

biguity or other problems in the items. Based on the pretest, a revised questionnaire was developed and administered to 151 employed respondents. Respondents were asked to indicate on a six-point scale how accurately each of the items described their general work climate. The six-point scale had the following verbal anchors: Completely false (0), Mostly false (1), Somewhat false (2), Somewhat true (3), Mostly true (4), Completely true (5).

The instructions to the respondents read:

We would like to ask you some questions about the general climate in your company. Please answer the following in terms of how it really is in your company, *not* how you would prefer it to be. Please be as candid as possible, remember, all your responses will remain *strictly* anonymous.

Respondents to climate questionnaires register their perceptions of work climates. While admittedly these perceptions are filtered by individual psychological characteristics and other individual differences, instruments must tap an informant's "description of the forms or styles of behavior in organizations" (Schneider, 1975:461). Although the intention is to use respondents as objective organizational informants, climate perceptions of behavior, procedures, and events can be confounded with evaluative or affective responses to the organization (Johannesson, 1973). Fortunately, Schneider (1975; 1983; Schneider & Snyder, 1975) has demonstrated empirically and argued persuasively that careful instrument design and administration can measure climate perceptions independently of evaluation. To be reliable and valid, such instruments must emphasize the description of, rather than feelings about, the work setting. *Thus, it must be noted that the measure of ethical climate in this study did not focus on whether the respondent believed he or she behaved ethically nor did it emphasize whether the respondent saw the ethical climate as good or bad.* Rather, we asked only for descriptions regarding the bases of ethical decision making.

Sample

The respondents were drawn from four distinct employed groups. The four groups included a general managerial sample from employed students in a Master of Business Administration program ($n = 75$); a faculty sample from several departments and colleges at a large midwestern university ($n = 25$); a military sample from students enrolled in a service-sponsored MBA program ($n = 29$); and a sample of managers from a multistate trucking firm ($n = 17$).

RESULTS

The 36 moral climate description items were factor analyzed using a principal component factor solution and a Varimax rotation. The factor analysis of the entire sample yielded a total of eight factors; but only six were interpretable. The two noninterpretable factors were eliminated from further consideration. Of the two eliminated factors, one had items that were similar only in question format (each asking about how substandard work was evaluated) and the other contained only one item.

Table 1 lists the climate descriptors presented in the questionnaire and their loadings on each of the six retained factors. To distinguish the nine theoretical ethical climate types from the six climate types that emerged empirically from the factor analysis, the factors have different labels from those in Figure 1. However, each questionnaire item is identified by the theoretical type of ethical climate (see Figure 1) it was written to reflect. For example, the first item of the empirically derived professionalism factor was written to measure the principle/cosmopolitan (PC) cell representing "the law or professional code" type of climate.

Factor 1 is identified by the highest loadings of items from the cosmopolitan levels of both utilitarian and principle dimensions of ethical climate (see Figure 1). The ethical components of these dimensions capture two of the basic characteristics of professionalism, an external source of principle and an extra-organizational level of concern (Cullen, 1978; 1983). As a result, this factor and the emergent climate type it identifies are labeled *professional*.

Factor 2 is described by the highest loadings on the individual and local levels of the utilitarian criteria descriptors. Included here were descriptors such as "The most important concern here is the good of all the people in the company" and "In this company, people look out for each other's welfare." This factor identified the *caring* type of corporate ethical climate.

Factor 3 is characterized by the highest loadings on local principle descriptors and identified the *rules* climate. This factor includes items such as "It is very important to strictly follow the company's procedures here"; "Everyone is above all expected to stick by the company rules and procedures"; and "People in this company strictly obey the company policies because they believe rules are rules."

Factor 4 involved the local and individual egoistic criteria descriptors. Descriptors with high loadings included "In this company, people protect their own interests above all else"; "In this company, people are only out for themselves"; and "People are expected to do anything to further the company's interests, regardless of the consequences." This factor identified the *instrumental* corporate ethical climate.

Table 1. Rotated Factors and Item Loadings

(Ethical Dimension)* ITEM	factors					
	1	2	3	4	5	6
1 PROFESSIONALISM						
(PC) people are expected to comply with the law and professional standards.	<u>77</u>	12	18	22	06	01
(PC) the law or ethical code of their profession is the major consideration.	<u>75</u>	11	24	-12	03	13
(PC) people are expected to strictly follow legal or professional standards.	<u>70</u>	00	30	31	06	10
(UC) it is expected that you will always do what is right for the public whom you serve.	<u>70</u>	16	09	20	25	13
(PC) the first consideration is whether a decision violates any law.	<u>52</u>	31	09	-37	11	-22
(UC) the major concern is the public's good.	<u>51</u>	45	15	12	25	28
2 CARING						
(UL) our major consideration is what is best for everyone in the company.	07	<u>78</u>	07	-03	14	16
(UL) the most important concern is the good of all the people in the company.	12	<u>76</u>	11	27	05	15
(UI) our major concern is always what is best for the other person.	16	<u>73</u>	10	05	05	05
(UI) in this company, people look out for each other.	09	<u>53</u>	02	-42	01	39
3 RULES						
(PL) it is very important to follow the company's rules and procedures here.	14	10	<u>80</u>	09	03	-11
(PL) everyone is expected to stick by company rules and procedures.	32	-05	<u>77</u>	-10	07	11
(PL) successful people in this company go by the book.	09	09	<u>76</u>	17	06	20
(PL) people in this company strictly obey the company policies.	15	12	<u>73</u>	07	23	10
4 INSTRUMENTAL						
(EI) in this company, people protect their own interests above all else.	18	39	02	<u>72</u>	04	08
(EI) in this company, people are only out for themselves.	10	23	13	<u>69</u>	04	-14
(EI) you are expected to only do what benefits yourself.	-19	17	-09	<u>60</u>	05	31
(EL) people are expected to do anything to further the company's interests.	11	33	02	<u>47</u>	39	02
5 EFFICIENCY						
(EC) the major responsibility of people in this company is to control costs.	03	-05	-04	02	<u>85</u>	-04
(EC) the most efficient way is always the right way in this company.	14	32	03	11	<u>63</u>	09

Table 1. Continued

(Ethical Dimension)* ITEM	factors					
	1	2	3	4	5	6
(EC) in this company, each person is expected above all to work efficiently.	10	13	30	15	<u>62</u>	-.04
6 INDEPENDENCE						
(PI) in this company, people are expected to follow their own personal and moral beliefs.	07	22	-15	-11	-06	<u>78</u>
(PI) each person in this company decides for themselves what is right and wrong.	07	05	21	24	05	<u>74</u>
(PI) the most important concern in this company is what is best for each individual.	12	33	21	21	13	<u>41</u>
(PI) there is no room for one's own personal morals or ethics in this company.	-.06	09	-.09	22	12	<u>37</u>

*Abbreviations refer to ethical dimensions described in Figure 1. See figure 1 for key (page 56).

Factor 5 loaded on descriptors involving the cosmopolitan level of egoistic criteria. Descriptors such as "The major responsibility of people in this company is to control costs"; "The most efficient way to do things is always the right way in this company"; and "In this company, each person is above all expected to work efficiently." This factor is labeled *efficiency*.

Factor 6 is described by the highest loadings on the individual level of the principle descriptors. Items such as "In this company, people are expected to follow their own personal moral and ethical beliefs"; and "Each person in this company decides for himself what is right and wrong" are included in this factor. Factor 6 and the associated climate type are labeled *independence*.

Scale Construction

To aid further analysis, scales were constructed from items identified by the factor analyses as representing six emergent types of corporate ethical climate. Item selection was made on the basis of two criteria. First, items were selected that loaded over 0.50 on a climate type factor and did not load over 0.40 on any of the remaining factors. Second, from the pool of items taken from the factors representing each type of climate, items were selected that had high intercorrelations within a factor and low intercorrelations with the remaining items. These scales measuring types of ethical climates were given the same names as the factors.¹

Table 2 presents the interscale correlations and the scale reliabilities.

Table 2. Intercorrelation and Reliability of Scale Scores

<i>Climate Scales</i>	2	3	4	5	6	<i>Alpha</i>
1. Professionalism	.42*	.34*	.35*	.30*	-.09	.81
2. Caring		.00	.04	.18	-.27*	.82
3. Rules			-.37*	.04	.02	.75
4. Instrumental				.33*	.17	.78
5. Efficiency					.00	.73
6. Independence						.65

* $P < .05$

There appears to be a moderate degree of independence between the scales, with the exception of the relationships between the professionalism climate scale and the other scales. The remaining scales display reasonably low levels of intercorrelation, with r 's from 0.37 to 0.00. While greater scale independence may be desirable to tap better the uniqueness of each type of ethical climate, the theoretical relationships among the constructs do not demand strict independence. It is possible that two or more types of ethical climate can coexist. With the exception of the low reliability of the independence scale, the measures have satisfactory reliabilities. Further instrument development is certainly called for; nevertheless, it is believed that the scales' characteristics are adequate for the exploratory purposes intended here.

Analysis by Groups

Climate researchers use a variety of classifications for grouping individuals to assess climate consensus. Organization, work group, and role (e.g., management, professionals) typically form the groups used as the basis of aggregation. Interactionist views of climate development (Ashforth, 1985; Schneider, 1983), following Weick's (1979) view of the enacted or psychologically created environment, see climate as an emergent process for collective sense making of organizational procedures and practices. Sense making occurs through social interaction, with the work group providing the most likely context (Ashforth, 1985). In addition to climate arising from social interaction, evidence suggests (Joyce & Slocum, 1979), however, that individuals not in face-to-face interaction may still hold similar climate perceptions due to similar organizational positions such as job function. Prior socialization and organizational selection and attraction of like employees may provide additional bases of climate consensus.

A critical question raised by the current investigation is whether cor-

porate ethical climates exist as such. That is, do members of different organizations or professions describe relatively identifiable ethical climates? To address this question, a discriminant analysis was conducted to determine if the respondents from each of the sampled populations described distinct ethical climates. As noted in the Methods Section, the respondents were from either the various business group (MBAs), the military, the academic, or the trucking firm sample. Nine respondents could not be classified due to missing data and therefore were not included in this analysis.

The sample was divided randomly into two groups of equal size. One group was used to derive the discriminant functions. The other group was used to test the power of the derived discriminant functions to classify respondents correctly into their actual groups. This classification procedure is usually considered more powerful than one using the same data both to derive the discriminant functions and to produce the classifications (Klecka, 1980). The corporate ethical climate scales were used as the discriminant variables.

Two canonical discriminant functions had Wilks' lambdas significant at 0.05 or less. These functions were rotated, using varimax rotation, to aid in the interpretation of the functions' meanings. The significant discriminant functions were then used for classifying those respondents not used in deriving the functions. One-way analyses of variance (with the sample as the factor) were also computed to aid in interpreting the results.

Group Analysis Results

The discriminant analysis revealed that the first discriminant function had an eigenvalue of 0.68, accounting for 69 percent of the variance, with a canonical correlation of 0.64. The second discriminant function had an eigenvalue of 0.23, explaining 23 percent of the variance, with a canonical correlation of 0.43. The first function was significant at 0.0001 or less; the second function was significant at 0.05. Wilks' lambdas prior to the extraction of each function were 0.45 and 0.76, respectively.

Results of the rotation of the significant discriminant functions are reported in Table 3. The top of the table reports group centroids. The centroid for each group represents its mean (in multidimensional space) on the six discriminating variables (the ethical climate scales). Means are in standard scores ($m = 0$; $sd = 1$).

An examination of the centroids for the first function, which explains most of the variance, shows that the military and academic respondents are separated by over two standard deviations. These groups are most distinct from each other and from the other groups.

The discriminant function coefficients appear on the bottom of Table

Table 3. Results of Discriminant Analysis

Groups	Functions	
	1	2
Canonical Discriminant Functions Evaluated at Group Means (Centroids)		
Various Business	-.19	.11
Military	.96	.27
Academic	-1.12	-1.16
Firm	.04	.12
<i>Climate Scale</i>		
Rotated Standardized Discriminant Function Coefficients		
Rules	.92	-.15
Instrumental	.29	.04
Professionalism	-.20	1.18
Caring	-.38	-.58
Efficiency	-.06	-.05
Independence	-.07	.00

3. They reveal which of the ethical climate measures contribute most to the distinctions among the groups shown by the centroids. The strongest coefficient in the first function is the positive value for rules. In conjunction with the separations shown by the group centroids, this finding suggests that academics report a less rule-oriented work climate than the other groups, while the military sample reports a more rule-oriented work climate.

The group centroids for the second function also show that the academic sample is different from the other groups. Discriminant coefficients suggest that academics report a less professional and more caring work climate than do other groups.

The degree to which an organization can be characterized by prevailing climate perceptions is a key variable of interest. This variable is analogous to, or perhaps part of, what the theorists of organizational culture (Sathe, 1983; Schein, 1984) call the degree of cultural strength. Strength does not imply good or bad, effective or ineffective (Schein, 1984). Rather, strength represents how identifiable a culture or climate is in a particular organization. A strong ethical climate suggests that organizational values are well known.

The data show that the ethical climates examined here are sufficiently strong and identifiably different to produce significant discrimination among the groups. An extension of this analysis, and one way of assessing

the various strengths of ethical climates for different groups, is to see how well respondents can be assigned to their actual groups solely on the bases of their climate perceptions. The significant discriminant functions reported in Table 3 were used to predict the group memberships of the respondents from the holdout sample. This classification analysis, as reported in Table 4, revealed that approximately 51 percent of the respondents not used to derive the discriminant functions could be classified correctly. The functions were most successful at classifying the academic and trucking firm samples.

Results for six ANOVAs are reported in Table 5. Each ANOVA compared the four groups on the six empirically derived types of ethical climate. An examination of these results reveals a pattern of ethical climates that may distinguish the work environments sampled. All of the moral

Table 4. Results of Classification Analysis

		Predicted Group Membership			
Actual Group	N	1	2	3	4
Cases Selected for Use in the Analysis					
Various Business	38	14 <u>36.8%</u>	9 23.7%	7 18.4%	8 21.1%
Military	18	4 22.2%	7 <u>38.9%</u>	2 11.1%	5 27.8%
Academic	9	1 11.1%	0 0%	7 <u>77.8%</u>	1 11.1%
Firm	8	3 37.5%	0 0%	0 0%	5 <u>62.5%</u>
Percent of groups correctly classified: <u>45.2%</u>					
		Predicted Group Membership			
Actual Group	N	1	2	3	4
Classification results for cases not selected for use in the analysis					
Various Business	37	14 <u>37.8%</u>	8 21.6%	11 29.7%	4 10.8%
Military	11	3 27.3%	5 <u>45.5%</u>	1 9.1%	2 18.2%
Academic	16	6 37.5%	1 6.3%	9 <u>56.3%</u>	0 0%
Firm	9	0 0%	0 0%	0 0%	9 <u>100%</u>
Percent of groups correctly classified: <u>50.7%</u>					

*Table 5. Results of One-Way Anovas Scale Means and Standard Deviations by Group
(N = 146)*

<i>Climate Scale</i>	<i>Group</i>				<i>F (3,142)</i>
	<i>Various Bus</i>	<i>Military</i>	<i>Academic</i>	<i>Firm</i>	
1. Professionalism	3.6 (.86)	3.7 (.88)	3.2 (.64)	3.8 (.62)	2.4*
2. Caring	2.4 (.89)	2.0 (1.11)	2.8 (.63)	2.9 (.63)	4.6**
3. Rules	3.0 (.93)	3.8 (.84)	2.6 (.86)	3.5 (.49)	9.6**
4. Instrumental	2 (1.03)	2.2 (1.01)	1.6 (.68)	1.9 (.96)	0.9
5. Efficiency	2.6 (.79)	2.2 (.95)	2.2 (.75)	3.6 (.49)	14.1**
6. Independence	2.1 (.99)	1.8 (.89)	3.0 (.98)	1.7 (1.03)	7.7**

* $P < .10$ ** $P < .001$

climate types with the exception of the instrumental significantly vary across the four groups.

The analysis of variance for professionalism shows that academics had the lowest score on this climate measure, tapping essentially an external orientation. However, perhaps more consistent with stereotype, academics did have significantly higher scores on the measure for the independence climate type. Academics, along with the trucking firm managers, also were from the most caring organizations. The managers of the trucking firm ranked highest on professional code/law climate followed closely by the military. The military had the most rules-oriented climate type and, along with the academics, the lowest on efficiency.

DISCUSSION

Joyce and Slocum (1979) propose three criteria for evidence of a corporate climate: (1) discrimination in the mean perceptions between organizations; (2) predictable relationships between mean perceptions and organizational characteristics; and (3) internal consistency in perceptions within organizations. By these criteria, the results provide evidence that the measures of corporate morality, when analyzed in aggregate, reveal a corporate ethical climate.

The four sample populations, various business, academic, military, and

single firm, were selected to represent objectively distinct organizational environments and a priori distinct degrees of internal consistency. As can be seen from the results of both the discriminant analysis and the six analyses of variance (Tables 4 and 5), the four groups are different from each other. Further, the descriptions of corporate ethics from single organizations (the military, academic, and firm samples) are generally more internally consistent than the descriptions from the group representing various businesses. The internal consistency also improves with the decreasing size of the sampled organizations. The military base is quite large (one of the largest facilities in the midwest), the university is smaller, while the trucking firm employs only 40 managers.

Finally, the content of the organizational climates provides evidence of their validity. The military climate described a relatively stronger rule orientation than the other climates (and a weak efficiency orientation). In contrast, the academic climate described a greater emphasis on independence in ethical judgment than the other climates (and a lack of emphasis on efficiency that rivals the military).

Implications

The finding of distinct ethical themes that define particular corporate ethical climates has implications for both understanding as well as controlling ethical behavior in organizations. Increasingly, firms are actively managing the ethical behavior of their employees. Firms are developing codes of ethics, using moral character as a selection criterion, monitoring the ethical judgment of managers, and training managers in ethical decision making. All these actions represent overt strategies for managing ethical behavior. However, the potential effectiveness of ethical management strategies such as codes of ethics, training, selection, and monitoring systems should be assessed within the context of an understanding of the organization's ethical climate. For example, an extensive written code of ethics may be quite effective in a rules or professional climate, but may fall on deaf ears in a caring or independence climate. Similarly, training that emphasizes utilitarian reasoning might be better suited to a caring climate than a rules climate. That is, training that emphasizes a theme consistent with the prevailing climate may be the most effective strategy.

To an extent, even the phenomenon of corporate crime may be viewed as a function of the ethical climate in the firm. Clinard (1983) notes that the corporation culture is frequently cited by executives as a major cause of corporate crime. The specification of types of corporate ethical climates may provide a means for further specifying this link between corporate culture and the ethical behavior of managers. A given type of ethical climate may be seen as more prone to particular managerial behavior prob-

lems than other climates. For example, corporations with caring or rules climates may be more prone to violations of trade laws than corporations with a professional climate. This is a possibility, since such climates may not emphasize external laws as important criteria for ethical decision making. Such inattention may lead to either unintentional violation or intentional application of caring or rules considerations which may come in conflict with the law. For example, when faced with the dilemma of offering a bribe or losing a contract, an employee from a caring climate may judge that s/he is expected to give the bribe because the contract would help people who work for the firm, even though it is illegal.

In one case, a corporate accountant who had been fired for falsifying government reimbursement claims sued the company for wrongful discharge. He claimed that such falsification was a standard operating procedure in the company. The accountant, and others like him, "rationalize dishonest or illegal behavior by seeing themselves as loyal corporate soldiers" (*Wall Street Journal*, June 13, 1986). In the framework of ethical climates, such behavior is an example of judgment directed by local rules (which were, in this case, in conflict with the law). Within the ethical climate concept, the accountant may be seen as complying with the organizational "ought" in contrast to an employee simply acting criminally on his/her own. The latter case is an example of "ordinary crime" while the former is an example of "corporate crime" (Clinard, 1983).

Future Research

The ability to identify and measure ethical climates in organizations makes it possible to address several new research questions. The most important questions focus on identifying the characteristics of ethical climates that affect future ethical behavior. Variables such as strength of climate (consensus of perceptions), variation across subgroup climates within organizations, type of predominant ethical climate, and mixture of climate types may influence ethical outcomes.

Given that ethical climates are important in organizations, the understanding of their antecedents also becomes an important research area. A possible fruitful investigation might specify those aspects of organizational design and managerial practices that produce certain types of climates and in turn associated ethical behaviors. Many researchers consider climate a *key* link between the macro organization and the individual (Field & Abelson, 1982).

An additional macro-level research question concerns whether organizations progress through stages of moral development similar to those hypothesized for individuals. Different ethical climates may dominate organizations during the stages of what some consider an organizational life

cycle (Kimberly, Miles, & Associates, 1980). If so, future researchers may find that climates related to life-cycle stages serve as predictors for organizational activities such as corporate crime or altruism.

An individual's adaptation to an ethical climate in terms of his or her personal ethical code is an area of investigation that may increase our understanding of several affective and behavioral responses to organizations. The conflict between personal ethical beliefs and ethical climate at work presents a possible source of dissatisfaction, turnover, and performance problems. Researchers investigating these areas virtually never consider ethics as a basis of person/role conflict. In addition, behaviors in the ethical domain, such as whistle-blowing, may represent a proactive response to such conflict.

Understanding the antecedents and consequences of ethical climates should prompt the design of intervention strategies to change climates and evaluation research to assess change strategies. At the present time, for example, it remains for investigation to assess whether the various types of ethical codes actually affect ethical climate and corresponding ethical behavior. Evaluation research addressing such questions is necessary both to develop our theoretical understanding of ethics within organizations and to aid managers in the prediction and control of an increasingly important area of organizational behavior.

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NOTE

1. Copies of the instrument are available from the authors.

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ILLEGAL CORPORATE BEHAVIOR AND THE QUESTION OF MORAL AGENCY: AN EMPIRICAL EXAMINATION

Philip L. Cochran and Douglas Nigh

Corporate crime has grown to significant proportions in recent years. Although there are no definitive studies of the annual cost of corporate crime, estimates range from billions of dollars (Clinard & Yeager, 1980:ix) to hundreds of billions (Kelley, 1982:25). The actual costs, whatever they may be, are undoubtedly very high. However, there have been few empirical studies of corporate crime. A major reason for the small number of such studies has been the difficulty in gathering data on the full range of illegal corporate behavior.

This study utilizes the most comprehensive data to date on illegal behavior by large U.S. corporations. It examines the relationship between

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the probability that such firms violate the law and various firm characteristics.

THE FIRM AS A MORAL AGENT

A central concern in the study of corporate crime is the concept of moral agency. At one extreme is the view that the firm is a full-fledged moral agent and therefore has moral rights and responsibilities similar to those of human beings. In the United States, firms are considered artificial persons for many purposes. They can own property. The Supreme Court recently affirmed that they have freedom of speech. Also, in everyday speech we find no incongruity in statements referring to corporate intentions, errors, plans, and so on. If this model is correct, then it is reasonable to contend that a firm can commit a crime, and if it does so, then it can also be sanctioned. In the extreme this model suggests that firms can be guilty of crimes even if *no* individual is guilty.

The opposite perspective is that firms are simply legal constructions that can no more assume rights or responsibilities than can automobiles or baseball bats. Opponents of the moral agency perspective note that although firms are granted some of the rights of people, they are denied others. For example, firms are not given the right to vote nor may they receive social security benefits. Just as it is absurd to indict a baseball bat for assault, it is ridiculous to ascribe responsibility for price fixing to a firm. In both cases the perpetrator was a person. The baseball bat in the first example and the corporation in the second were simply instruments or tools through which the act was perpetrated. This argument, which reduces the behavior of a collective to that of its members, is known as methodological individualism.

Due to its unique status, it might be useful to consider the corporation a special type of moral agent, with some, but not all, of the rights and responsibilities of a person. Donaldson, for example, argues persuasively that corporations can qualify as moral agents if they have the capability "of employing moral reasons in decision making" and the capacity "to control fundamental policies and procedures" (1982:34).

Likewise, French contends that responsibility that is not reducible to individual responsibility to associations of individuals that have certain characteristics. They are: (1) internal organizations or procedures through which actions are chosen; (2) enforced standards of individual conduct that are more stringent than in the general population; and (3) a role hierarchy that is independent of the individuals filling any particular role (1984:11-12).

French also contends that in order to include corporations as moral persons it is essential that they exhibit (like human beings) the ability to

make "nonprogrammed" decisions. That is, they must show the ability to adapt to changing situations and conditions. If, for example, a given action can be shown to be profitable but, at the same time, morally repugnant then they must be able to modify their internal decision-making procedures so as to eliminate the objectionable activity. French concludes that most managerial organizations exhibit these traits and, therefore, should be considered moral persons (1984:167-168).

As a practical matter it is difficult even to discuss corporate crime without to one degree or another acknowledging that a firm is a moral agent. Fisse (1982), for example, while acknowledging that this has been a perennial debate in the field, contends that "it would be illiberal and inconsistent with social reality of corporate blameworthiness to try to make individual criminal liability do the whole job" (1982:69).

Frew (1973) likewise contends that organizations may commit actions that most (perhaps all) of the individuals within the organization decry. Frew suggests that an organization is more than the sum of its components, just as is a transistor radio or an automobile or a human being. In fact he answers the question in the title of his article, "Pollution: Can the People Be Innocent While Their Systems Are Guilty?" in the affirmative. Monsen and Downs reached a similar conclusion with their contention that large firms "develop bureaucratic management structures which cannot be perfectly controlled by the men in charge of them" (1965:236).

This question is not purely academic—it has significant practical and public policy implications. If only individuals commit crimes, then control mechanisms and sanctions should be aimed at individuals. For example, in the E. F. Hutton case a large number of local managers engaged in a comprehensive scheme of check kiting. They caused E. F. Hutton, in effect, to "borrow" millions of dollars from the firm's banks without paying any interest. These individuals were, apparently, interested almost solely in increasing E. F. Hutton's profits. Nonetheless, a methodological individualist would argue that only those individuals who actually conceived of and engaged in the check-kiting scheme were culpable.

If, on the other hand, organizations can act as moral agents then it is necessary to look at organizational structure, as well as organizational practices and policies, to find the causes as well as the means of preventing illegal corporate behavior. In addition, if organizations are moral agents then sanctions against organizations that break the law are not illogical. If organizations are moral agents then E. F. Hutton is culpable for the check-kiting scheme.

A Definition

Before proceeding further it is important to clarify our definition of corporate crime. For the purposes of this paper we use Clinard's definition

of organizational crime. He suggests that the traditional area of white collar crime can be divided into two categories: occupational crime and organizational crime (1983:12). Occupational crimes are crimes committed by businesspeople or other professionals, the primary purpose of which is to increase individual, not organizational, wealth. Embezzlement is an example of an occupational crime. Such crimes, though committed in a corporate setting, are not of interest here since traditional criminology has extensively studied crimes undertaken for individual reward.

Organizational crime, on the other hand, is substantively different. Organizational crime is crime committed on behalf of an organization by one or more of its employees (Braithwaite, 1982:1466; Finney & Lesieur, 1982:264; Clinard & Quinney, 1973; Kramer, 1982:17-18). Corporate crime is a subset of organizational crime, dealing with crime committed on behalf of a corporation. Dershowitz acknowledges that corporate crime may result in some secondary or derivative individual benefits. However, he contends that its primary purpose is to increase corporate, not individual, wealth (Dershowitz, 1961:289-291). Price fixing is an example of corporate crime.

We contend that the motivations for crimes committed for the sake of the corporation are substantially different from those committed for personal gain. Confusing these two types of crime, both committed in the corporate setting, can lead to inefficient public policies aimed at controlling such crime.

Decision-making Models

One approach to understanding corporate crime is to examine organizational decision-making models. Allison (1971), in his classic book on decision-making processes, discussed three conceptual models of organizational decision making. The first of these models, the Rational Actor Model, assumes that corporations act as single entities that consciously examine and choose among different courses of action. This is essentially the full-fledged moral agency argument with no significant distinctions between legal and natural persons.

The second model, the Organizational Process Model, assumes that organizations consist of many smaller subunits, each with a degree of autonomy. The coordination of these subunits requires certain standard operating procedures (SOPs) which prescribe specific types of responses to predetermined stimuli.¹ Some SOPs are established through oral or written directives. Others arise from the routinization of the usual ways of handling common tasks. The behavior of organizations under this model is largely determined by SOPs. Even in new situations, firms generally apply the most appropriate of existing SOPs—ones used in similar situations.

This model seems consistent with Donaldson's view of corporate moral

agency, particularly with his emphasis on the capacity of firms to control their fundamental policies and procedures. It is also compatible with French's discussion of corporate responsibility. French discusses Corporate Internal Decision (CID) Structures which are conceptually very similar to Allison's SOPs. French recognizes that procedural rules can be both written as well as informal (1984:53–54). He also argues that if action "is genuinely the result of individual actions taken by the appropriate people in accord with the established procedures in the company, then the culprit will truly be said to be the corporation . . ." (1984:55).

In fact, later in his work French explicitly recognizes the role of SOPs (1984:168) that determine most of an organization's reactions to its environment but, at the same time, must be adaptive to new situations. French goes as far as to suggest that firms might actually be more adaptive than many individual human beings (1984:167).

The third model, the Bureaucratic Politics Model, assumes that organizational decisions are the result of a complex political interaction among individuals and coalitions. The decision-making process in this model consists of continuous bargaining and compromise; however, in this model the decision is ultimately made by an individual, subject to organizational constraints. This model is consistent with the methodological individualist perspective that views the firm as an essentially mechanical entity and suggests that the responsibility for corporate actions ultimately rests on individuals.

Kriesberg (1976) extended Allison's models into the area of corporate crime. He argued that each of Allison's models of decision making has different implications for an understanding of corporate crime. The Rational Actor Model assumes that corporate crime should be viewed as if it were the result of a rational decision by a single entity. That is, this model assumes that the corporation weighs the costs and benefits of various alternatives before deciding upon a course of action based on the effect of each alternative on its goals—normally profit maximization.

The Organizational Process Model contends that corporate crime occurs because of the character of the organization's SOPs. That is, certain types of organizational rules might increase the likelihood of corporate crime—or even encourage it. For example, a strong emphasis on profits without any corresponding emphasis on how those profits are achieved might lead some corporate managers to believe that the corporation is implicitly encouraging questionable practices. Other types of rules might severely limit the occurrence of corporate crime. Culpability for corporate crime under this model is shared by the organization and by those senior executives who are responsible for establishing and monitoring the SOPs.

The Bureaucratic Politics Model sees corporate crime resulting from the actions of individuals, within an organizational context. The Bureau-

cratic Politics Model suggests that individuals actively decide whether or not to violate the law. This model is consistent with the idea that the responsibility for corporate crime rests with individuals, not corporations. In this model, culpability is extended to the middle managers who actually execute the illegal activities in addition to the senior executives who establish the procedures.

Hopkins (1978) examined why 22 firms violated the Australian Trade Commissions Act. Using court records, he determined that the most common reason for such violations was "defective" SOPs. He found that, in the majority of cases, firms failed to institute SOPs which prevented illegal behavior. In a few cases, however, firms intentionally had SOPs that promoted illegal behavior. Hopkins argued that the Organizational Process Model is particularly relevant to the exploration of corporate crime.

We likewise contend that Kriesberg's application of the Organizational Process Model to corporate crime has important implications for empirical studies of corporate crime. According to Kriesberg, the Organizational Process Model "implies that corporate violations occur because existing SOPs mandate or allow illegal action or because no SOPs exist to prevent illegal actions" (1976:1113). We submit that certain firm characteristics are related to the existence of SOPs that mandate or permit illegal corporate action or to the absence of SOPs that prevent illegal corporate action, or both.

First, we contend that firms with poor financial performance are more likely either to fail to establish SOPs that prevent illegal corporate acts or to have SOPs that mandate or allow illegal acts. Financial performance is an especially important goal of large U.S. publicly held corporations. The firm is concerned with earnings performance, often on a quarterly basis. When such performance is poor, tremendous pressure can be put on managers to achieve "results." What is emphasized is the end (improved financial performance), not the means by which it is to be achieved.

Second, we argue that organizational complexity affects the likelihood that SOPs that prevent illegal corporate behavior do not exist or that SOPs that mandate or permit illegal corporate behavior do exist, or both. More complex firms have more levels of management, greater numbers of subunits, and more specialized subunits. More complex firms have a higher probability of instituting SOPs through oral or written directives that are appropriate for a subunit in one industry or country but not in another. More complex firms have greater difficulty ensuring that relevant information is communicated to the appropriate persons in the organization (Monsen & Downs, 1965). More complex firms simply have greater difficulty coordinating the actions of all the subunits. The more complex the organization, the more likely it is that no specific individual has responsibility for any particular action. Ermann and Lundman contend that "it

is possible for people in corporate positions to do their jobs well and still produce deviant actions. This is because no one person has the responsibility, incentive, time or skill to collect, assimilate, and use the information needed to coordinate and evaluate corporate actions" (1982:9).

To summarize, both financial performance and organizational complexity are related to the likelihood that a firm has SOPs that permit illegal action or does not have SOPs that prevent illegal action, or both. Such "defective" SOPs give rise to corporate violations of *all* types (labor, environmental, unfair trade, etc.).

PREVIOUS EMPIRICAL STUDIES ON CORPORATE CRIME

To date there have been few empirical studies of corporate crime. This is due in large part to difficulty gathering data on the full range of illegal corporate behavior.

In Sutherland's 1949 classic, *White Collar Crime*, the focus was primarily on what we refer to in this paper as corporate crime. Relying on a wide variety of public sources, Sutherland gathered information on many types of violations of the law for 70 major corporations for the period 1900–1944. Among other things, Sutherland discovered that although the larger firms in his sample tended to have more violations, "the correlation between size and number of violations is not large enough to be significant" (1949:259).

In a more recent study, Staw and Sz wajkowski (1975) explored whether or not environmental scarcity (measured as poor firm and industry financial performance) increases the likelihood that firms will engage in illegal corporate activity. Focusing on possible violations of antitrust laws and the Federal Trade Commission Act, they examined the relationship between firm and industry financial performance for 105 of the Fortune 500 firms that were involved in trade litigation from 1968 to 1972.

Their results indicated that the average profits of the cited firms over the previous five-year period were significantly below those of the Fortune 500 as a whole. Further tests showed, however, that the financial performance of the cited firms was statistically indistinguishable from that of their industries. Staw and Sz wajkowski concluded that firms in scarce environments (i.e., poorly performing industries) have a greater tendency to engage in trade violations regardless of how well they are doing relative to their industry.

Asch and Seneca addressed the question of whether or not collusion is profitable. They examined the return on investment of 51 firms which were found guilty of or pleaded *nolo contendere* to violations of the Sher-

man Act between 1958 and 1967. They discovered that "the presence of collusive behavior is negatively associated with firm profitability . . ." (1969:4). They subsequently concluded that "unsatisfactory profit performance may motivate firms to collude" (1969:7). Let us note here, however, that both Asch and Seneca as well as Staw and Szwajkowski dealt with a narrow range of violations by a limited number of firms.

In contrast, the study performed by Clinard, Yeager, Brisette, Petrashek, and Harries (1979) is a much more comprehensive examination of corporate violations of the law. The researchers collected data on initiated and completed enforcement actions taken against large U.S. corporations by 24 federal agencies during 1975 and 1976. The study focused its empirical work on 477 of the Fortune 500 manufacturing firms, with 105 large publicly held nonmanufacturing firms receiving a less intensive examination. Each of the violations was categorized according to degree of seriousness (minor, moderately serious, serious) and according to type (administrative, environmental, financial, labor, manufacturing, unfair trade, other).

Of particular interest to the study at hand is the Clinard et al. (1979) empirical work on predicting corporate violations. Clinard et al. sought to "isolate [the] set or sets of factors predictive of corporate illegalities" (1979:150). Their independent variables consisted of various indicators of firm and industry financial performance and structural characteristics. All in all, some 21 independent variables were used in a series of stepwise regressions to identify those variables that had a statistically significant relationship with corporate violations. As the dependent variables, both the total number of violations of all types and the number of violations of a certain type (e.g., administrative, environmental, labor, and manufacturing) were examined. Clinard et al. examined violations of all degrees of seriousness, as well as just nonminor violations, i.e., those they classified as moderately serious or serious. Finally, each dependent variable took the form of the number of violations as well as the number of violations per \$100 million sales.

With regard to the results of their 54 stepwise regressions, Clinard et al. concluded that "the results indicate that, except for manufacturing violations, the measures of firm and industry characteristics are not strong indicators of corporate violations" (1979:178). The specific results of most interest for our research pertain to the relationship of the independent variables and total nonminor violations. In this case, Clinard et al. found firm size, industry mean firm size, and industry mean assets per employee to be significant predictors of total number of nonminor violations (1979:308).

The present study builds upon the work of Clinard et al. and indeed utilizes the extensive data base constructed as a result of their work. This

study, however, differs in important ways. Clinard et al. acknowledge that "ideally, it would have been possible to examine the data three different ways, each addressing different issues: (1) the differences between nonviolators and violators, regardless of the number of violations; (2) the differences among violators only, involving the investigation of different rates of infraction among firms; and (3) the differences between nonviolators and violators, considering the full range of violation rates. . . . However, neither time nor resources permitted such intensive investigation" (1979:161).

The present study addresses the first of these issues enumerated above—an area of research left unexamined by Clinard et al. in their work on predicting violations. Specifically, we examined the relationship between the probability of a firm being a nonminor violator and various firm characteristics.

This distinction between firms that have violated the law and those that have not is important. Clinard and Yeager suggest that cultural norms within the corporation or industry may "encourage or discourage criminal or deviant behavior" (1980:58). They go on to argue that "lawbreaking can become a normative pattern within a corporation" (1980:60). That is, because of firm or industry characteristics, individuals within certain corporations may be more likely to engage in illegal activities that benefit the firm.

Sutherland notes, on the one hand, that in his sample "72 percent [of the violators] are recidivists in unfair labor practices. This is a larger percentage of recidivism than is found among prisoners in state and federal prisons except among habitual and professional criminals" (1949:133). Sutherland goes on to argue that "the criminality of the corporations, like that of the professional thieves, is persistent: a large proportion of the offenders are recidivists" (1949:218).

On the other hand, other firms tend not to break the law. It is worth noting that fully 54 percent of the firms in the Clinard et al. sample had no nonminor violations over the two-year period. Therefore, the research question in this paper deals with the distinctions between nonviolators and violators, regardless of the number of violations.

In addition to examining a question different from that examined by Clinard et al., this study employs a different research approach. Clinard et al. focused on identifying sets of factors predictive of different types of illegal corporate behavior by means of stepwise regression. This study investigates the relationship between the probability of a firm being a nonminor violator and seven firm characteristics. We develop a conceptual framework that relates certain firm characteristics to nonminor illegal corporate behavior of any type. The hypotheses that follow from this general, nonindustry-specific framework are tested using multiple logistic regression

analysis. The focus of the analysis is on the structure of the model rather than its predictive ability.

HYPOTHESES

Financial Performance

One factor that could lead to illegal corporate activity is poor financial performance. As noted earlier, Staw and Sz wajkowski have suggested that firms in relatively scarce environments will feel a greater need to engage in illegal corporate behavior as a means of acquiring "additional resources from the environment" (1975:352). Asch and Seneca found that "unsatisfactory profit performance may motivate firms to collude" (1969:7). There are a number of ways that poor financial performance can be measured. The first of these is the firm's own profitability. This is certainly the most important measure of financial performance and long-term viability. Over the long run, firms must make nonnegative profits in order to survive. Poor or negative profits are very likely to encourage management to institute SOPs that permit illegal acts or fail to institute SOPs that prevent illegal acts, or both. The first hypothesis is:

H1: Firm profitability (PROFIT) is negatively related to illegal corporate behavior.

Another aspect of profitability relates to the firm's industry. If a given industry as a whole is unprofitable, then even profitable firms within that industry may be forced by competitive pressures to engage in illegal activities initiated by their less profitable competitors. The SOPs of a firm in an unprofitable industry may thus be more conducive to illegal corporate behavior than those of a firm in a profitable industry. The second hypothesis is:

H2: The profitability of a firm's industry (IPROFIT) is negatively related to illegal corporate behavior.

Yet another measure of poor financial performance is deteriorating liquidity. Firms whose liquidity is decreasing simply have less financial maneuvering room and may have a greater incentive to commit illegal acts when faced with adversity. The third hypothesis is:

H3: The trend in firm liquidity (LIQUID) is negatively related to illegal corporate behavior.

Organizational Complexity

Size is one measure of organizational complexity. Vaughan has suggested that perhaps "it is not simply size per se that facilitates the unlawful conduct, but the complexity of the internal processes and structure that accompany increased size" (1982:1388). The fourth hypothesis is:

H4: Firm size (SIZE) is positively related to illegal corporate behavior.

Though this hypothesis may seem intuitively obvious, it is important to note that neither Katona (1946) nor Lane (1953) found a positive relationship between violations and size.

Another indicator of complexity is the product diversification of a firm. Presumably a firm entirely in one industry will be relatively more homogeneous and more likely to have a relatively uniform set of SOPs. As firms branch out into unfamiliar industries and hire managers less familiar with the core businesses, the odds in favor of crossed signals and genuine misunderstandings can increase dramatically. SOPs that work in one industry simply may not work in another. The fifth hypothesis is:

H5: Firm diversification (DIVERS) is positively related to illegal corporate behavior.

Yet another aspect of complexity is the degree of multinationality of a firm. This is, in a sense, a measure of geographic diversity. Clinard et al. hypothesized that firms with a greater percentage of their assets abroad would be less inclined to engage in illegal corporate behavior because (a) they have moved their "high risk" operations abroad and (b) they can apply any "regulatory savings" from foreign sales to the prevention of domestic regulatory problems. However, for nonminor violators, they found no relationship between firm multinationality and illegal behavior.

Contrary to Clinard et al., we hypothesize that firms engaged in business activities that cross national boundaries will be *more* prone to engage in illegal corporate behavior. There are several reasons for this belief. The complexity of a multinational firm is inherently greater than that of a similar but uninationa firm. The multinational firm operates simultaneously in a number of countries. The economic, political-legal, and sociocultural systems of these countries can be quite different. The physical and cultural distances among the various units of a multinational are greater than those of a purely domestic company.

The individuals working in the various subunits are from different cultures and, in many cases, speak different languages. The probability of misunderstanding in cross-cultural communication is greater. Coordinating

the activities of subunits is more difficult. The greater the degree of multinationality, the greater the likelihood that the firm will fail to institute SOPs that prevent illegal behavior or have SOPs that allow illegal behavior. The sixth hypothesis is:

H6: Degree of firm multinationality (MULTI) is positively related to illegal corporate behavior.

Firm growth is yet another measure of complexity. Rapidly growing organizations are likely to "outgrow" their earlier SOPs. Procedures that were perfectly adequate for a smaller firm may be totally inadequate for a larger firm. Vaughan, for example, suggests that periods of rapid organizational growth may weaken the traditional standards that tended to inhibit illegal activities (1982:1383). The seventh hypothesis is:

H7: Firm growth (GROW) is positively related to illegal corporate behavior.

DATA

This study uses data originally assembled by Clinard et al. under a grant from the Law Enforcement Assistance Administration (LEAA). The data are available on computer tapes through the Inter-university Consortium for Political and Social Research (ICPSR). For their study, Clinard et al. gathered data on "violations" for 1975 and 1976 for 477 of the largest manufacturing firms and 105 major wholesale, retail, and service firms as well as data on their 101 largest subsidiaries. "Violations" were enforcement actions (actions instituted and sanctions imposed) taken by 24 federal agencies against firms in the sample. Data on violations were gathered from a variety of sources including: (a) federal agencies, (b) law service reports, (c) corporate reports to the SEC, and (d) newspaper data banks.

There were a total of 1,853 violations against these firms over the above mentioned time period. Violations ranged from "failure to file" through "ocean dumping" and "fraud" to "product recalls." Clinard et al. categorized violations as: (a) administrative, (b) environmental, (c) financial, (d) labor, (e) manufacturing, (f) unfair trade, and (g) other. In addition, all violations were classified as either: (a) minor, (b) moderately serious, or (c) serious.

To categorize the violations as to their seriousness, Clinard et al. used the following criteria: repetition, intent, extent of illegal behavior within the corporation, size of monetary losses, effects on consumers or employees, and length of time during which violations took place. The par-

particular decision rules used to classify violations were very involved and are described in detail in Clinard et al. (1979:76–79). In general, however, paperwork violations such as failure to submit a report or to keep adequate records were classified as minor; antitrust violations were classified as either moderately serious or serious; effects on consumers were considered more serious than effects on other corporations; SEC financial cases were considered serious because they involved large sums of money and repeated violations.

In the Clinard et al. study, data on a large number of firm and industry variables were also collected. The sources of information for these data included COMPUSTAT, Moody's manuals, annual reports, 10-Ks, *Fortune* magazine, and Economic Information Systems, Inc. (EIS). The measures of these variables are described as follows:

1. Firm profit (PROFIT)—the five-year mean for net income divided by total sales
2. Industry profit (IPROFIT)—five-year mean industry score for net income divided by total sales for the firm's primary industry, where the industry is composed only of those firms in the sample with the same 2-digit SIC classification
3. Firm liquidity trend (LIQUID)—five-year trend of net working capital divided by total assets, where net working capital is current assets less current liabilities
4. Firm size (SIZE)—the log of the value of the five-year mean for corporate assets (in billions of dollars)
5. Firm diversification (DIVERS)— $1 - \sum_i P_i^2$ where P is the ratio of the firm's sales in the i th industry (four digit SIC level) to the firm's total nonforeign sales
6. Firm degree of multinationality (MULTI)—the proportion of total sales generated by a firm's foreign subsidiaries
7. Firm growth (GROW)—five-year trend of the log of total assets

The five-year period for the mean and trend measures is 1971–75. The five-year mean measures make use of information on the period immediately prior to the period during which the violations took place. The five-year trends are indicated by the slope of the regression lines generated by regressing the relevant level variable on year. Unstandardized b 's are used to indicate trends. The diversification and multinationality measures make use of the only data available to Clinard et al. at the time of collection, i.e., 1977 data provided by EIS. For more information on these measures, see Clinard et al. (1979).

Using the data made available as a result of Clinard et al., this study investigated the behavior of large U.S. manufacturing firms. Like Clinard et al., we focused our empirical analysis on the industrial firms for which the relevant data were available. The final sample size was 434. In addition, we were concerned with nonminor violations only. These were those violations categorized by Clinard et al. as serious or moderately serious. In distinguishing between violators and nonviolators, we did not want minor violations, often trivial and inadvertent, to be considered.

METHODOLOGY

The data were analyzed using multiple logistic regression (MLR), a method for estimating the probability of being in any one state of the dependent variable as a function of a number of independent variables (Walker and Duncan, 1967). Maximum likelihood estimation was used to estimate a model relating the logic of the probability of being a nonminor violator to a linear function of the firm characteristics noted above.

The analysis involved a dependent variable which was measured as a dichotomous variable. We investigated violators of any type with the binary variable defined as zero if the firm was *not* a nonminor violator (i.e., the firm committed no nonminor violations) and one if the firm was a nonminor violator (i.e., the firm committed at least one nonminor violation.) Of the 434 firms in our sample, 182 (42 percent) are nonminor violators and 252 (58 percent) are not. The means, standard deviations, and intercorrelations of the seven independent variables are presented in Table 1.

Table 1. Means, Standard Deviations, and Intercorrelations for the Independent Variables^a

Variable	Mean	S.D.	1	2	3	4	5	6
1. Profit	.048	.029						
2. Iprofit	.051	.017	.42 ^b					
3. Liquid	-.002	.020	.01	-.04				
4. Size	6.427	1.044	.27	.14	.05			
5. Divers	.649	.248	-.12	-.05	.11	.13		
6. Multi	.168	.127	.23	.25	-.07	.32	-.07	
7. Grow	.107	.070	.38	.22	-.15	-.15	-.21	.12

^an = 434

^bfor $r > .10$, $p < .05$

RESULTS

Table 2 presents the results of the MLR analysis. First, we note that the model likelihood chi-square (44.24) is significant at the 0.01 level. Before turning to the results for the individual explanatory variables, we note that collinearity diagnostics indicate that the explanatory variable data matrix is not ill conditioned, and therefore collinearity presents no significant problem for our analysis (Belsley, Kuh, & Welsch, 1980).

For the individual explanatory variables, we find that the coefficient of firm profit (PROFIT) is significant at the 0.05 level. The direction of the relationship is as hypothesized. The lower the profitability of a firm, the greater the probability that the firm is a nonminor violator. The coefficient of firm size (SIZE) is significant at the 0.01 level with the expected positive sign. The greater the size of a firm, the greater the probability that the firm is a nonminor violator. The coefficient of firm growth (GROW) is significant at the 0.05 level with the direction of the relationship as hypothesized. The greater the growth rate of a firm, the greater the probability of being a nonminor violator. We should also note that the coefficient of product diversity of the firm (DIVERS) is significant at the 0.1029 level. Again, the direction of the relationship is as expected. The greater the product diversification, the greater the likelihood that the firm is a nonminor violator.

To summarize, the results presented in Table 2 provide good support for the existence of the hypothesized relationships between the probability of being a nonminor violator and each of four firm characteristics: firm

Table 2. Results of Multiple Logistic Regression Analysis

<i>Variable</i>	<i>Beta</i>	<i>Std. Error</i>	<i>Chi-Square</i>
Intercept	-4.81	.84	32.81**
Profit	-9.90	4.70	4.45*
Iprofit	-4.84	7.03	.47
Liquid	-.54	5.38	.01
Size	.66	.12	30.05**
Divers	.73	.45	2.66
Multi	.32	.89	.13
Grow	3.76	1.68	5.00*

Number of observations 434

Model likelihood ratio chi square 44.24**

Fraction of concordant pairs .66

*p<.05

**p<.01

profit, size, growth, and product diversity. Finally, while we are most concerned with the relationship between the explanatory variables and the dependent variables, we note that the predictive ability of the model as indicated by the fraction of concordant pairs (.66) is good.²

DISCUSSION

This study provides some important new insights into the study of illegal corporate behavior. It appears that Kriesberg's application of Allison's Organizational Process Model has useful implications for the study of illegal corporate behavior. The concept of standard operating procedures that mandate or allow corporate crime or the absence of SOPs that prevent corporate crime leads to two broad sets of hypotheses.

The first set deals with poor financial performance. Poor firm profit does affect the likelihood that the firm will be a nonminor violator. Firms with lower levels of profit have a significantly higher probability of engaging in illegal behavior than do firms with higher levels of profit. This supports and generalizes the results of Asch and Seneca on violations of the Sherman Act.

Industry profits, in contrast, show no significant relationship with illegal corporate behavior. Thus the evidence of this study indicates that Staw and Sz wajkowski's results for violations of antitrust laws and the Federal Trade Commission Act may not be generalizable to all types of violations.

In addition, our final measure of financial performance, deteriorating liquidity, showed no significant relationship with illegal corporate behavior. Again, it appears that the key dimension of financial performance is the firm's own profitability. It appears that our argument that poor firm profitability is related to "defective" SOPs and an increased likelihood of illegal corporate behavior has merit.

The second set of hypotheses deals with organizational complexity. Three of the four factors investigated proved to be related to the probability that the firm will engage in illegal corporate behavior. First, the greater the firm size, the greater the likelihood that the firm is a violator. This result is consistent with that of Clinard et al. on factors predicting nonminor violations. A second measure of complexity is firm product diversification. Firms that are more diversified have a greater chance of breaking the law. Likewise, a third measure, firm growth, has a positive relationship to illegal corporate behavior. It appears that development of appropriate SOPs may lag the growth of the firm.

We find no support for the hypothesis that a firm's degree of multinationality is related to the probability that it will be a nonminor violator. Perhaps there is no such relationship. On the other hand, as Aharoni (1971)

noted, there are a variety of indicators of multinationality. Perhaps a measure, such as the number of countries in which the firm has operating affiliates, may be more appropriate for this study than the percentage of foreign affiliate sales. Unfortunately, such data were not available for this study.

CONCLUSION

This study examined the issue of the firm as a moral agent and suggested a model of corporate decision making that is useful in studying corporate crime by large U.S. corporations. We contended that the organization and its culture, especially its SOPs, appear implicated in the commission of criminal acts, impelling or encouraging individual employees to act illegally on behalf of the company.

We proposed and tested seven hypotheses based on this model. The empirical work utilizes the first extensive data base available on illegal corporate behavior by large U.S. firms. We found that poor firm profitability, large firm size, high product diversification, and rapid growth are related to an increased likelihood that a major industrial firm will engage in illegal corporate behavior.

The normative implications of our study are clear. Managers of firms that are unprofitable should be particularly sensitive to the increased likelihood that their company will become a nonminor violator. Likewise, managers of firms that are large, diversified, or fast growing should be especially alert. These managers should be vigilant to ensure that SOPs do not encourage or allow illegal behavior. Managers need to take action to establish policies and practices that encourage firm personnel to behave legally.

In addition, our study has implications for regulatory agencies. In an era of slower growing regulatory budgets, regulatory personnel may find it useful to concentrate scarce resources on those firms that have a higher likelihood of becoming a nonminor violator. The evidence of our study points to firms that are unprofitable, large, highly diversified, or fast growing.

Illegal corporate behavior has many costs, some of which are borne by the firm and others by the society. The more we understand about criminogenic factors, the greater the possibility of prevention.

NOTES

1. This paper follows Kriesberg's use of standard operating procedures to include a hierarchy of concepts (repertoire, program, standard operating procedure) used in Allison (1971:83).

2. The fraction of concordant pairs is the fraction of all pairs of observations having different dependent variable (Y) values in which the observation with respect to the larger Y has a higher predictive probability than does the observation with the smaller Y. It is that portion of the total number of pairs in which the predicted probabilities are concordant with the dependent variable values. This method of assessing the predictive ability of the model is superior to a classification table since the predicted probabilities are continuous (Harrell, 1983:184).

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ILLEGAL CORPORATE BEHAVIOR AND CORPORATE BOARD STRUCTURE

Frederick H. Gautschi, III and Thomas M. Jones

Although illegal corporate behavior has been in evidence for at least two centuries (Votaw, 1965:18), in recent years there has been increased attention given to the phenomenon. Two indications of the greater attention are as follows. First, as Clinard et al. (1979:xiv) note, the costs to the American public of corporate crime run into billions of dollars on an annual basis. Second, Lipset and Schneider (1983) note that public opinion polls indicate that since the early 1970s public confidence in American business has declined considerably. Corporations and their executives are not held in particularly high regard by the public. Contributing to the low esteem are well publicized instances of corporate illegality. For example, revelations from the Watergate investigation contributed to lowered public confidence in business as well as government. At the time they wrote

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their book, Lipset and Schneider could discern no evidence that the "confidence" crisis was beginning to abate. In conclusion they express great concern that the severe lack of confidence could portend serious consequences for the American political/economic system.

Other authorities have demonstrated concern about corporate crime because there seems to be a pervasive belief that social control of such crime is ineffective. The *Harvard Law Review* devoted its entire April 1979 issue to the topic, "Corporate Crime: Regulating Corporate Behavior Through Criminal Sanctions." Stone's 1975 work, *Where the Law Ends*, was motivated in part by a belief that law is limited in its ability to deter socially undesirable corporate behavior. As Stone mentions, the law often lags behind the corporation and, more often than not, corporate crime is not thought of as true crime. As a consequence, the deterrent effect of criminal sanctions aimed at corporate officials is limited. The various authors in a recent work, *Corporations as Criminals* (Lynxwiler et al., 1984), discuss these same problems concerning deterrence of corporate crime, noting that evolving public sentiment now seems more willing to entertain prosecuting corporations for criminal acts.

In response to this state of affairs, various proposals have been advanced to deal with the incidence of corporate crime. Most fit under one of two general headings. The first focuses on external constraints on corporate decision makers; examples include clarifying legal responsibility within the firm (McVisk, 1978), flexible systems of contingent penalties (Yoder, 1978), and civil fines which create incentives for firms to comply with the law (*Harvard Law Review*, 1979). Lynxwiler, Shover, and Clelland (1984) explain that the effectiveness of this approach is likely to be influenced by numerous extra-legal factors that affect the severity of sanctions imposed.

In contrast, Stone (1975) and Nader, Green, and Seligman (1976a) direct their reform proposals primarily at corporate boards of directors. Stone advocates adding public directors to the boards of America's largest publicly held companies. Although these directors would be of two types, general and special, both would be charged with protecting the public interest. The latter would exist to deal with (1) law violation endemic to the industry of which the firm is a part and (2) preventing the recurrence of illegal behavior that the firm had displayed during some previous period.

The Nader, Green, and Seligman proposal would require that the boards of the largest publicly held firms be numerically dominated by directors responsible to particular interest groups. For example, there would be directors to represent environmentalists, employees, and consumers. Although these authors are also concerned with corporate criminality (1976b), their elaborate proposal (1976a) primarily expands the "watchdog" role of the board of directors and is not very specific regarding the reduction

of corporate crime. This proposal, as part of the Corporate Democracy Act, was introduced but not voted upon in Congress.

A less ambitious proposal is that advanced by Eisenberg (1977). Here too, the focus is on the board of directors. Eisenberg would require that large publicly held firms have boards numerically dominated by outside directors. Further, the outsiders would function primarily as a body to hire, evaluate, and, if necessary, fire the chief executive. To support this function the outsiders would have control of (1) the nominating committee of the board and (2) the determination of the auditor. A version of this proposed reform has been implemented in the context of court-dictated solutions of the highly publicized Northrop and Phillips Petroleum cases involving illegal political campaign contributions (Jones, 1980).

As Stone (1975) and others have noted, external constraints have been imposed somewhat more frequently than the internal constraints. For example, one can cite instances of increases in fines for violations of environmental protection regulations. Further, in a recent case the state of Indiana prosecuted (but the court did not convict) Ford Motor Company for reckless homicide relating to the demise of an occupant of a Ford Pinto who was burned to death in an auto accident. Such examples are newsworthy because they are uncommon and, in the aggregate, of little consequence. The law does not represent a significant constraint in corporate decision-making processes (Stone, 1975). As Clinard (1983:10-11) notes:

On the whole, laws that affect corporations are fairly new, and the economic and political powers of the corporate world have been marshaled to discourage or prevent the application of criminal penalties to violations of corporate law and thus to avoid the opprobrium of the terms "crime" and "criminal."

In addition, there are some modest elements of reform in existence. First, over the last 15 years there has been a tendency for large publicly held firms to increase the number of outsiders on their boards of directors. Second, firms whose stock is traded on the New York Stock Exchange are required by the Exchange as of 1978 to have audit committees composed of outside directors. The efficacy of these changes has not yet been extensively examined.

Purpose of the Study

As the above section makes clear, much theory has been developed and, in some cases, acted upon, regarding the reduction of corporate criminal behavior. To date relatively little has been done to evaluate the

likely effectiveness of the proposed reforms or the actual effectiveness of the reforms that have been implemented. The purpose of this study is to address these questions directly by empirically examining the relationships between various characteristics of boards of directors and the incidence of illegal corporate behavior. Through the insights gained here and in related studies, scholars and policy makers should be better able to address the problem of corporate criminality.

Previous Research

Sutherland's study (1949) represents the seminal work on corporate illegality. While the author limited his investigation to the 70 largest manufacturing, mining, and mercantile corporations as of 1948, he examined the record of each over the course of its lifetime. The record consists of the "decision of courts and administrative commissions against the 70" (p. 13). The results of the study, which utilized no statistical tests, suggest, according to the author (p. 259), that "variations in the number of decisions seem to be due to four types of factors, namely, age of corporation, size of corporation, position of the corporation in the economic structure, and personal traits of the executives of corporations." In terms of numbers of violations, Sutherland ranked the effect of position in the economic structure first, size next, age third, and personal traits of executives last. In fact, only position in the economic structure and size account for more than a slight impact on the incidence of unfavorable court and administrative decisions (Sutherland, 1949).

Until 1979, the Sutherland study remained the most comprehensive examination of corporate illegality (Clinard et al., 1979:19). As of that year Clinard and his colleagues reported the findings for their Department of Justice funded study of violations of federal law by 477 manufacturing firms for the years 1975 and 1976. In the chapter labelled "Predicting Corporate Violations," the authors set forth eight hypotheses concerning the incidence of violations. These hypotheses pertain to firm size, profitability, diversification, market share, foreign operations, growth rate, industry profitability, and capital versus labor intensiveness. As one can infer, the variables constitute a restatement of Sutherland's two primary factors, with position in the economic structure being recast as a multifaceted variable. Although the authors categorized violations according to degree of seriousness and attempted to account for the incidence of each type within the 477-firm sample, they discovered, using ordinary least squares, that for all violations considered together, firm size is the most highly significant variable, with industry-level variables constituting the remainder of the significant explanatory variables. Specifically, the results show that size is positively related to incidence of violations, while

industry mean liquidity, industry trend efficiency, and industry growth are all negatively related to the incidence of violations (169–170).

The Clinard et al. findings, interesting as they are, should be examined for their contingent characteristics. That is, numerous proxies for size and “position in the economic structure” can be envisioned. Consequently, given that the authors of that study chose a subset of those proxies, an analysis using other proxies, as in the current study, might lead to different results. Still, the authors’ arguments supporting the inclusion of a corporate size variable are persuasive. Simply put, one would expect a larger firm, however size is measured, to stand a greater chance of running afoul of some regulatory proscription, owing to the multiplicity of its activities.

Hypotheses

According to Eisenberg (1977), the board of directors exists primarily for the purposes of monitoring the performance of management. In order to have boards act as effective monitors Eisenberg would have (1) a majority of outside directors on the board and (2) the power to hire the auditor in the hands of the outside directors. Outsiders are thus the key ingredients in Eisenberg’s proposal. Their influence could also extend to the operation of the audit committee of the board. His proposal regarding the nominating committee does not relate directly to corporate criminal behavior. Thus the board’s primary monitoring agents, the outsiders, operate in two distinct domains: (1) at the level of the board itself, and (2) within the board’s own monitoring committee, i.e., the audit committee. Therefore one would expect the influence of outside directors on the incidence of criminal behavior to be felt at these two levels. Increased monitoring at the board level would be represented by an increased proportion of outside directors on the board. Since audit committees tend to be small, monitoring at this level can best be represented by the number of outside directors on the audit committee. In terms of hypotheses:

1. H_0 : The incidence of corporate criminal behavior is unrelated to the proportion of outside directors on the board
 H_a : The incidence of corporate criminal behavior is *negatively* related to the proportion of outside directors on the board
2. H_0 : The incidence of corporate criminal behavior is unrelated to the number of outside directors on the audit committee
 H_a : The incidence of corporate criminal behavior is *negatively* related to the number of outside directors on the audit committee

Jones (1986) found that the size of the board was negatively related to the incidence of shareholder litigation in which the firm was involved.

Since shareholder litigation and corporate criminal behavior are related phenomena, we would expect a similar relationship to appear in this study.

3. H_0 : The incidence of corporate criminal behavior is unrelated to board size
 H_a : The incidence of corporate criminal behavior is *negatively* related to board size

One would also expect that a greater number of attorneys on the board would be associated with a reduced incidence of corporate criminality.

4. H_0 : The incidence of corporate criminal behavior is unrelated to the number of attorneys on the board.
 H_a : The incidence of corporate criminal behavior is *negatively* related to the number of attorneys on the board.

Finally, the top management of a corporation may try to insulate itself from the monitoring effects of outsiders on the board and on other committees of the board by establishing an executive committee of the board, empowered to conduct the ordinary business of the firm when the full board is not in session. A firm's commitment to independence from the monitoring of outside directors may be measured by the number of inside directors on its executive committee.

5. H_0 : The incidence of corporate criminal behavior is unrelated to the number of inside directors on the executive committee
 H_a : The incidence of corporate criminal activity is *positively* related to the number of inside directors on the executive committee

A secondary hypothesis follows from the conclusions of Sutherland (1949) and Clinard et al. (1979), who found that firm size was positively related to the incidence of corporate criminal behavior. Since this relationship is already firmly established, company size is used as a control variable in this study.

Model

Given the above discussion, it is possible to formulate the following regression model for corporate criminal violations:

$$\text{Violations} = f[\ln \text{ Mean Corporate Assets 1971-5}] (\text{LNMCA}), \\ \text{Number of Directors on the Board (NMDIR)}, \\ \text{Proportion of Outside Directors (PROPOUT)}, \\ \text{Number of Attorneys (NATT)},$$

Number of Outside Directors on the Audit Committee (OUTAU)
 Number of Inside Directors on the Executive Committee (INEXEC)]

This model indicates that the number of violations is a linear function of LNMCA, NMDIR, PROPOUT, NATT, OUTAU and INEXEC.

Data

Data for the study came from two sources. First, the authors obtained from the Interuniversity Consortium for Political and Social Research a copy of the data used in the Clinard et al. study cited above. The data bases contain information on documented violations of federal law during 1975 and 1976 for 477 industrial firms. Second, from various corporate reports (10K, 10Q, 8K, and annual reports) the authors obtained information on board structure characteristics of 100 firms, representative of the largest industrial firms in the economy. This group of 100, all of which were included in the Clinard et al. study, constitutes the sample for this study.

Before proceeding, some caveats regarding the data should be noted. One should be aware that the study focuses on documented violations. The authors of the Clinard et al. study explain in some detail that reporting procedures for federal agencies are such that not all violations of federal law are recorded. Since there is no theory to suggest otherwise, it is probable that there is no systematic exclusion process at work in the agencies. Consequently, it is not unreasonable to assume that the missing violations are randomly distributed across the 100 companies in this study. A related concern is that illegal corporate behavior that is not detected is outside the scope of this study. The focus here is on selected illegal behavior that is discovered. What one might be more interested in knowing—that is, how board structure affects illegal corporate behavior (undetected as well as detected)—cannot be answered by the current study.

Results

Ordinary least squares analysis was performed on the data for the years 1975 and 1976 with the following results (t values are in parenthesis):

$$\begin{aligned}
 *1975 \text{ Violations} = & -19.09 + 2.48 \text{ LNMCA} + 0.04 \text{ NMDIR} + 6.03 \text{ PROPOUT} \\
 & \quad (4.89) \quad (0.26) \quad (1.61) \\
 & -0.59 \text{ NATT} + 0.11 \text{ OUTAU} + 0.51 \text{ INEXEC} \\
 & \quad (1.17) \quad (0.39) \quad (1.92) \\
 & \quad R^2 = .357 \quad F = 8.44 \\
 & \quad \quad \quad \quad \quad 6.91
 \end{aligned}$$

$$\begin{aligned}
 *1976 \text{ Violations} = & -16.28 + 1.56 \text{ LNMCA} + 0.22 \text{ NMDIR} + 6.02 \text{ PROPOUT} \\
 & (2.65) \quad (1.15) \quad (1.33) \\
 & -0.22 \text{ NATT} + 0.16 \text{ OUTAU} + 0.60 \text{ INEXEC} \\
 & (0.38) \quad (0.47) \quad (1.99) \\
 & R^2 = .263 \quad F = 5.12 \\
 & \quad \quad \quad 6.86
 \end{aligned}$$

Consistent with the results of the Clinard study, firm size (LNMCA) continues to be an appropriate control variable. Just as one would expect, the larger firms are more likely to display illegal behavior. Notice that the accompanying t-values for the regression coefficients for LNMCA are quite sizable.

The primary hypothesis did not fare so well, however. We expected the proportion of outside directors (PROPOUT) to be negatively related to corporate criminal behavior; in fact, a strong positive relationship emerged for each of the two years under examination. The greater the proportion of outsiders, the higher the incidence of violations, all other things being equal. Rejecting the null hypothesis is out of the question, of course; indeed, it makes sense to advance an explanation of this unexpected result. It may be that outside directors simply do not have access to the types of information that would help them reduce the firm's criminal behavior. Mace (1971) suggests this possibility in his analysis of the efficacy of outside directors.

The other hypothesis regarding outside directors suffered a similar (if less pronounced) fate. The prediction was that the number of outside directors on the audit committee (OUTAU) would be negatively related to the incidence of corporate criminal conduct. Again the relationships were positive for both years. However, in both cases the coefficients were very small and statistically insignificant. Although the null hypothesis cannot be rejected, in this case no counter theory seems warranted.

Another prediction was that higher incidence of corporate criminal violations would be associated with small boards of directors. Again this prediction was not supported by the data. Larger boards were linked to greater numbers of criminal violations, as indicated by the positive regression coefficients for this variable (NMDIR) in both equations—1975 and 1976. Neither coefficient was close to being statistically significant, however.

The prediction concerning the presence of attorneys on the board did not fare as badly as those described above. The number of attorneys on the board (NATT) was expected to be negatively related to corporate criminal violations. Indeed, this was the case; both NATT coefficients were negative. The relationships were not strong enough to produce sta-

tistical significance, however; the hypothesis that the number of attorneys on the board is unrelated to the number of criminal violations cannot be rejected.

Finally, the relationship between the number of inside directors on the executive committee (INEXEC), a measure of the firm's determination to insulate its decision making processes from the monitoring effects of outside directors, was expected to be positively related to the number of corporate criminal violations. The data clearly support this hypothesis; the INEXEC coefficients for both years—1975 and 1976—were positive and significant at the .05 level. As the number of inside directors on the executive committee increases, the number of criminal violations increases.

Since the variable designating the size of the "outsider" contingent on the audit committee (OUTAU) had almost no impact on the number of violations experienced by the firm, and since this variable was itself moderately correlated to the proportion of outside directors (PROPOUT), a second set of regression models with OUTAU removed was tested to see if its presence reduced the impact of PROPOUT. The following results were obtained.

$$\begin{array}{l}
 \text{*1975 Violations} = -19.66 + \begin{array}{c} 2.54 \text{ LNMCA} \\ (5.24) \end{array} + \begin{array}{c} 0.04 \text{ NMDIR} \\ (0.28) \end{array} + \begin{array}{c} 6.61 \text{ PROPOUT} \\ (1.92) \end{array} \\
 \quad \quad \quad -0.58 \text{ NATT} \quad + 0.53 \text{ INEXEC} \\
 \quad \quad \quad (1.16) \quad \quad (2.05) \\
 \quad \quad \quad R^2 = .356 \quad \quad F = 10.18 \\
 \quad \quad \quad \quad \quad \quad \quad \quad 5.92 \\
 \\
 \text{*1976 Violations} = -17.26 + \begin{array}{c} 1.67 \text{ LNMCA} \\ (3.07) \end{array} + \begin{array}{c} 0.22 \text{ NMDIR} \\ (1.17) \end{array} + \begin{array}{c} 6.94 \text{ PROPOUT} \\ (1.71) \end{array} \\
 \quad \quad \quad -0.20 \text{ NATT} \quad + 0.63 \text{ INEXEC} \\
 \quad \quad \quad (0.35) \quad \quad (2.15) \\
 \quad \quad \quad R^2 = .26 \quad \quad F = 6.16 \\
 \quad \quad \quad \quad \quad \quad \quad \quad 5.87
 \end{array}$$

The principal effect of this change in the model is to make the effects of PROPOUT and INEXEC somewhat more pronounced. The changes in coefficients and T-values are quite modest, however.

Substantive Significance

Next examined are the results as they pertain to the primary hypothesis using the concepts of substantive significance and level importance as

described by Achen (1982). The first of these relates to how large a regression coefficient has to be to be meaningful.

Substantive significance is difficult to determine in the current study, but reasonable estimates can be generated utilizing the mean values for 1975 and 1976 violations. For reasons not entirely clear, mean violations for the sample declined from 3.76 in 1975 to 3.33 in 1976. Although any level of impact on the dependent variable may be defended as constituting substantive significance, a twenty percent change in mean violations was accepted here.

It is now possible to discuss the choice of the criterion for substantive significance by referring to the concept of level importance. As Achen notes (p. 71) we "call the measure of importance that captures actual influence in the sample the level-importance statistic." For the j th variable the statistic is computed as shown below:

$$\text{Level importance} = \beta_j \bar{x}_j$$

Where β_j is the regression coefficient for variable j and $\bar{x}_j$ is the mean value for variable j . By performing this calculation for each of the variables for 1975 and 1976 we are able to arrange, in order of greatest to least impact, level importance of the variables, as Table 1 indicates.

The criterion value for 1975 is 0.75 and for 1976 is 0.67. Notice that a number of the variables fail to reach this threshold. As Table 1 demonstrates, the effect of firm size is substantial, a result consistent with the Clinard et al. study. It is worthy of note, also, that some board structure variables are of considerable substantive significance as well. This fact is more striking in the case of the 1976 data.

Table 1. Table of Level Importance (Absolute Values)

1975 Impact		1976 Impact	
Variable	$\beta_j \bar{x}_j$	Variable	$\beta_j \bar{x}_j$
LNMC	17.81	LNMC	11.22
PROPOUT	3.26	PROPOUT	3.37
INEXEC	1.46	NMDIR	3.15
NMDIR	0.57	INEXEC	1.67
NATT	0.56	OUTAU	0.43
OUTAU	0.27	NATT	0.21

Criterion Value = 0.75

Criterion Value = 0.67

Summary and Conclusions

The current study provides a retrospective examination of the extent to which selected elements of corporate board structural reform are associated with a lowered incidence of corporate violations of federal law. The examination, using the only available comprehensive data set on illegal corporate behavior, allows one to ask whether those elements were linked to changed behavior. The answer is a qualified yes. While one of the proposed reforms, increasing the proportion of outside directors on the board, clearly was linked to the incidence of illegal corporate behavior, its impact was negative. Firms with higher proportions of outside directors on their boards tended to have more criminal violations than did those with lower proportions of outside directors. Had this study been designed to test this outcome, the results would have been significant at the 0.1 level. In addition, larger numbers of outside directors on audit committees were not found to be linked with lower incidences of corporate illegality. Indeed, there was a very modest positive association between outsiders on the audit committee and corporate legal violations. Taken together, these findings are very discouraging in terms of the reform of corporate governance through changes to boards of directors. Reformers who wish to reduce the incidence of corporate criminality will have to focus on mechanisms other than increased monitoring of corporate behavior by outside directors.

However, one ought to consider carefully what the term "outsider" represents. As numerous commentators have noted, outsiders may be only somewhat less tied to the chief executive through family, reciprocal arrangements, etc. than are insiders. The director who can be expected to act as something of a "watchdog" may have to be a director without a significant relationship to management, as the American Law Institute draft on corporate governance (1982) suggests. In this study's data base the extent to which outsiders are persons without a significant relationship to management is not known.

In fact, directors may fall into a "spectrum of independence" with respect to links to the firm's top management. At one end of the spectrum lie inside directors who are dependent on the favor of the CEO for their continued employment. At the other end lie outside directors without any economic or family ties to top management. Attorneys on retainer, suppliers, creditors, and so on would lie in between. With respect to this study, the inside/outside dichotomy may be too rough a division to accurately assess the monitoring value of outside directors. Hence, the reduction of criminal activity on the part of corporations may yet be possible through increased employment of "independent" directors on corporate boards. Further study is needed in this area.

The findings regarding board size and illegal corporate behavior are not particularly surprising in light of the relatively weak and contradictory theory linking board size to corporate behavior in general. While Herman (1981) has argued that large boards are unlikely to be involved in the deep discussion requisite to careful decision making, Jones (1986) has suggested that large boards will have more collective expertise, experience, and judgment than small boards and will therefore be better able to monitor top management. The findings in this study—larger boards are linked to slightly greater incidence of corporate criminal behavior—lend very modest support to Herman's theory.

Scholars such as Stone (1975) and corporate reformers who advocate a greater role for attorneys in corporate decision making should not be discouraged by these findings. The number of attorneys on the board was found to be linked to reduced incidence of corporate criminality, although the association was not overly strong. Future studies should attempt to discriminate among the degrees of independence of attorneys on the board (inside, "on retainer," independent, etc.) in order to refine the analysis presented here.

The results with respect to the relationship between inside directors on the executive committee and corporate illegal behavior are the most significant findings (statistically and theoretically) of this study. The fact that firms with greater numbers of inside directors on the executive committee tended to have more criminal violations may force scholars to rethink their theories of board reform. To date, reformers have focused their efforts on the board as a whole or on certain "key" committees of the board (audit and nominating). The findings of the present study suggest that this emphasis may be misplaced and that more attention should be paid to the executive committee. This key committee may be the primary decision-making body for the firm when the board is not in session, which is most of the time. Understanding its structure and decision processes may be more crucial to an understanding of firm behavior than is an understanding of the full board.

It is certainly possible that firms deck their boards out with various "window dressing"—outside directors, women, minorities, etc.—while at the same time they are delegating more and more key decisions to a committee comprised mainly of insiders—the executive committee. This development would have major implications for corporate reformers, as well as those who empirically examine the effects of board structure on corporate behavior.

Illegal Corporate Behavior, Board Structure, and Ethics

Illegal corporate behavior exacts a heavy toll from society. Not only does it cost society enormous sums of money, it tends to undermine the

public's faith in major economic institutions. It is often said that individuals look to society's major institutions—government, churches, corporations, unions, and the media—for moral leadership. In this context, the apparently high incidence of corporate crime must be a depressing phenomenon indeed; citizen cynicism and despair regarding these institutions can easily be understood. The reduction of corporate criminal activity can be justified in these terms alone.

Further, many authorities believe that "ethical duality" is difficult for individuals to achieve. Carr (1968) has suggested that personal ethics and business ethics are, and should be, separate concepts. When a businessperson is at work, he or she must adopt the moral framework of a poker game, where "bluffing" and other practices of a questionable legal and ethical nature (in nonbusiness environments) are *de rigueur*. This switching back and forth between business/poker ethics and personal ethics—ethical duality—cannot be easily achieved; distinctions tend to become blurred, and justifications for practices in one realm tend to be transferred to the other. In this context, corporate criminal behavior takes on a more ominous significance; it may be weakening personal tendencies toward lawful and ethical behavior. This is one more reason why reducing corporate crime is important to society.

This paper explored the role of corporate boards of directors in reducing levels of corporate criminal behavior. The question addressed is: does the structure of the board make any difference in terms of the legal and ethical decision-making process of the firm? The answer is "yes, it does," but the implications for reformers are not all positive. One clear implication, however, is that structural changes to boards cannot come close to eliminating corporate criminal activity. Even if boards could be structured to optimize resistance to criminal tendencies on the part of corporations, much "unexplained variance" would remain. This suggests that there is no substitute for strong ethical stances among corporate employees, from the top executives to the blue collar workers. Personal ethics will continue to play a major role in the behavior of corporations.

Given this likelihood, research that examines the links between corporate criminal behavior and the ethics of top management is likely to be most productive. Future researchers in this area should explore the relationship between the ethical climate of the firm and the propensity of the firm to commit criminal violations. Studies of this type would help us better understand the nature and causes of corporate crime and suggest strategies for its reduction.

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CODES OF ETHICS: ORGANIZATIONAL BEHAVIOR AND MISBEHAVIOR

M. Cash Mathews

INTRODUCTION

The American public is heavily dependent on the conscience of corporate executives to protect their lives, well-being, and pocketbooks (Mintz and Cohen, 1973:75). Ralph Nader, the consumer advocate, has done much to alert the public to some corporations' lack of social responsibility, starting with his indictment of the American automobile industry (see Nader, 1965). And while many corporations are essentially law-abiding, executives of many others do not consider the idea of social responsibility, in the form of protecting the public welfare, to be of major importance. Environmental pollution, faulty or dangerous products, harmful prescription drugs, and unsafe foodstuffs all adversely affect consumers and the general public. Braithwaite (1982), among others, notes that corporate

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crimes that cause bodily harm are perceived by the public to be more deserving of severe punishment than most forms of street crime. Szwajkowski (1985) points out that the general public is becoming more aware of the issues involved in corporate crime, and Galbraith (1973:7) argues that corporations "have no natural rights to be left alone" where the public interest and welfare are at issue.

Corporate leaders have continued to stress that the business world is capable of regulating itself and that further governmental intervention is unnecessary. However, while some corporate cultures encourage law-abiding behavior patterns, others promote pro-criminal behavior patterns. Social scientists (see Black, 1976, for example) suggest that law (regulation) varies inversely with other forms of social control, e.g., a code of conduct. Therefore, one way for corporations and corporate executives to demonstrate (1) social responsibility, (2) a corporate culture that promotes anticriminal behavior patterns, and (3) the possibility of self-regulation, is a written code of business ethics/conduct. The codes seek to establish baselines for corporate as well as individual behavior among corporation employees.

This study examines the impact of codes of ethics on one aspect of corporate crime—the illegal activity on the part of 485 United States manufacturing corporations (the majority of which are Fortune 500 companies) over an eight-year period—1973 through 1980. The type of illegal activity is that which directly and adversely affects consumers and the general public—those illegalities involving food, drug safety and quality, product safety and quality, environmental violations, and motor vehicle safety. The time period of 1973 through 1980 was chosen because it was a distinct era in terms of the growing concern by corporations and consumers over the importance of corporate social responsibility. For example, following notoriety in the White House (see Douglas, 1977) and the overseas payments scandals, most major corporations wrote or revised their codes of business ethics/conduct in 1975 (see Cressey and Moore, 1980; 1983). The codes and revisions were written by the highest level of corporate executives.

In order to examine the idea that codes of ethics/conduct influence behavior within corporations (by providing anticriminal behavior patterns) and thus can promote self-regulation, the illegal behavior of corporations possessing such codes is compared to that of corporations without the codes.

SAMPLE AND DATA COLLECTION

Two separate sets of data were collected and analyzed—(1) corporate codes of ethics/conduct and (2) administrative and civil actions taken by four federal regulatory agencies (Food and Drug Administration, Envi-

ronmental Protection Agency, Consumer Product Safety Commission, and the National Highway Traffic Administration) against 485 corporations from 1973 through 1980. The 485 corporations are the most profitable (based on net income as a percent of equity, assets, and sales) United States manufacturing corporations with over \$100 million in sales annually. The majority of the corporations were part of the Fortune 500. The definition of corporate crime follows that of Clinard and Yeager (1980) as "any act committed by corporations that is punished by the state, regardless of whether it is punished under administrative, civil, or criminal law." However, there were so few criminal actions taken by the four federal agencies in the present study, that criminal actions were dropped from the analysis. As Wheeler, Weisburd, and Bode (1982) point out, it is rare to find convictions for felonies associated with food, drug, or environmental offenses.

For records of the illegal activities of the corporations, material was collected from federal regulatory agencies. Using the Freedom of Information Act, the records were obtained from four regulatory agencies—the Food and Drug Administration (*Food and Drug Administration Annual Reports, Food and Drug Administration Enforcement Reports*), the Environmental Protection Agency (*Environmental Quality Annual Reports*, computer print-outs of enforcement actions), the National Highway Traffic Safety Administration (*Highway Safety, Motor Vehicle Safety*), and the Consumer Product Safety Commission (*Consumer Product Safety Commission Annual Reports*). The total number of illegalities (crimes against consumers and the general public) over the eight-year period for the corporations in the study is 703. It should be noted that this study analyzes only those crimes against consumers and the general public which have reached the attention of the four federal regulatory agencies. Many offenses may have gone undetected or may not have reached the level of federal regulatory agencies. Further, in their 1980 study, Clinard and Yeager suggest that their undercount of actual governmental actions was approximately one-fourth to one-third. It is likely that the undercount in this study is similar. However, just as Clinard and Yeager point out, the undercount is probably unbiased and does not affect the methodology or conclusions.

In order to collect the codes of ethics/conduct, letters were sent to the 485 corporations in the study (1) to determine if the corporation had a code of conduct, and (2) if so, a request was made for a copy of the code. Two sets of follow-up letters were sent to corporations that had not responded to the previous requests. The response to the three mailings was 346 (71%). Of the responses, nine wrote that they had merged, were now privately held, or were the parents of corporations in the study. (Some of the listings included parent and subsidiary.) From the high response rate, it was obvious that corporations were very interested in participating in the study. However, some corporations needed further assurance that

their responses would be anonymous, some wanted a copy of the study upon completion, and some requested information about the study's principal investigator.

Approximately one-third of the corporations did not respond to the three mailings. Nonrespondents were not immediately dropped from the analysis. This decision was based on the assumption that significant or informative patterns might emerge from the analysis of the nonrespondents, and so information on actions taken by federal regulatory agencies against these corporations was also collected. However, there appeared to be no significant patterns in the violations of the nonrespondents that might bias the results of the study, so these corporations were excluded from further analysis.

The total number of written codes received was 212. Ninety-four corporations said they did not have a code. Thirty-one corporations indicated that they did have a code but were unwilling to send it for various reasons (proprietary information, "not available to the public," etc.). Ten of the documents that purported to be codes were actually either annual reports, "Philosophy of the Company," or instructions to new employees, such as "Be on time." These ten were coded as "no code," which brought the number of corporations without codes to be 104, in comparison to 202 corporations with codes who sent them.

CONTENT ANALYSIS OF THE CODES

Analytic Categories

Because the primary issue in the study was to examine the impact of codes of ethics/conduct on corporate illegalities, corporations with such codes are compared to corporations without the codes. First, however, the content of the codes themselves is analyzed according to three different categories; (1) behavior and actions covered by the code, (2) enforcement procedures, and (3) penalties for noncompliance. It was hypothesized that not merely having a code would make a difference, but rather the specific content of the code itself. For example, corporate codes that are specific in content, i.e., make clear which behavior is unacceptable, clarify enforcement procedures, and contain penalties for illegal behavior, would have fewer violations than other corporations. The codes themselves were further content-analyzed according to the 64 additional categories shown in Table 1. For example, it is suggested that corporations which discuss the importance of the corporation's reputation in the codes will be less likely to have violations.

Another variable analyzed is the impact of the size of the corporation

Table 1. Categories of Codes of Conduct

<i>N</i> = 202		(percentages in brackets)		
<i>Conduct on Behalf of the Firm</i>	<i>Not Discussed</i>	<i>Discussed</i>	<i>Discussed in Detail</i>	<i>Emphasized</i>
1. Relations with U.S. Gov't	27(13.4)	60(29.7)	47(23.2)	68(33.7)
2. Relations with customers/suppliers	28(13.9)	45(22.3)	50(24.8)	79(39.1)
3. Relations with employees—health, safety	127(62.9)	37(18.3)	24(11.9)	14(6.9)
4. Relations with competitors	85(42)	40(19.8)	29(14.4)	48(23.8)
5. Relations with foreign gov'ts	54(26.7)	46(22.8)	44(21.8)	58(28.7)
6. Relations with investors	119(58.9)	46(22.8)	23(11.4)	14(6.9)
7. Civic and community affairs	152(75.2)	35(17.3)	13(6.4)	2(.9)
8. Relations with consumers	155(76.7)	40(19.8)	4(1.9)	3(1.5)
9. Environmental affairs	176(87.1)	14(6.9)	8(3.9)	4(1.9)
10. Product safety	184(91)	13(6.4)	3(1.5)	2(1.0)
11. Product quality	159(78.7)	27(13.4)	10(5.0)	6(2.9)
12. Payments or political contributions to gov'ts or gov't officials or employees	31(15.3)	23(11.4)	44(21.8)	104(51.5)
<i>Conduct Against the Firm</i>				
13. Conflict of interest	50(24.7)	18(8.9)	23(11.4)	111(54.9)
14. Divulging trade secrets/proprietary information	111(54.9)	44(21.8)	27(13.4)	20(9.9)
15. Insider trader information	115(56.9)	26(12.9)	31(15.3)	30(14.5)
16. Personal character matters	189(93.6)	9(4.5)	2(1)	2(1)
17. Other conduct against the firm	181(89.6)	19(9.4)	2(1)	0
18. Integrity of books and records	50(24.7)	19(9.4)	36(17.8)	97(48)
<i>Basis of Code</i>				
20. Legal responsibility	19(9.4)	71(35.1)	64(31.69)	48(23.8)
21. Ethical responsibility	24(11.9)	96(47.5)	53(26.2)	29(14.3)

(continued)

Table 1. (Continued)

N = 202		(percentages in brackets)		
Conduct on Behalf of the Firm	Not Discussed	Discussed	Discussed in Detail	Emphasized
<i>Laws cited (in reference to:)</i>				
22. Anti-trust	135(66.8)	17(8.4)	11(5.4)	39(19.3)
23. Securities	173(85.6)	18(8.9)	8(4.0)	3(1.4)
24. Environment	201(99.5)	1(.5)	0	0
25. Food and drug	201(99.5)	1(.5)	0	0
26. Product safety and quality	200(99.0)	2(1.0)	0	0
27. Worker health/safety	193(95.5)	3(1.5)	3(1.5)	3(1.5)
28. Bribes or payments to gov'ts or officials	164(81.2)	13(6.4)	9(4.5)	16(7.9)
29. False advertising	185(91.6)	12(5.9)	2(1.0)	3(1.5)
30. Other laws	186(92)	10(4.9)	2(1.0)	4(2.0)
<i>Federal Agencies/Commissions referred to:</i>				
31. EPA	200(99)	2(1.0)	0	0
32. FDA	201(99.5)	1(.5)	0	0
33. SEC	178(88.1)	17(8.4)	3(2.9)	1(.5)
34. OSHA	200(99.0)	2(1.0)	0	0
35. CPSC	202(100)	0	0	0
36. FTC	195(96.5)	3(1.5)	2(1.0)	2(1.0)
37. Transportation Dept. (NHTSA)	201(99.5)	1(.5)	0	0
38. Other agency	196(97.0)	4(2.0)	2(1.0)	0
<i>Type of Compliance or Enforcement Procedures</i>				
Internal—Oversight				
39. Supervisor surveillance	119(58.9)	69(34.2)	11(5.4)	3(1.5)
40. Internal watchdog committee	165(81.7)	24(11.9)	10(5.0)	3(1.5)
41. Internal audits	156(77.1)	29(14.4)	14(7.0)	3(1.5)
42. Read and understand affidavit	190(94.0)	7(3.5)	4(2.0)	1(.5)
43. Routine financial budgetary review	197(97.5)	3(1.5)	2(1.0)	0

44. Legal department review	129(63.9)	54(26.8)	15(7.4)	4(2.0)
45. Other oversight procedures	150(74.2)	46(22.8)	6(3.0)	0
Internal—Personal Integrity (For questions re policy or reporting misconduct of self or others to:)				
46. Supervisor	133(65.9)	57(28.2)	10(5.0)	2(1.0)
47. Internal watchdog committee	177(87.6)	16(8.0)	6(3.0)	3(1.5)
48. Corporation's legal counsel	81(40.0)	55(27.2)	42(20.8)	24(11.9)
49. Other (in firm)	95(47.0)	84(41.6)	18(9.0)	5(2.5)
50. Compliance affidavits	112(55.4)	49(24.2)	20(10.0)	21(10.4)
51. Employee integrity	102(50.5)	61(30.2)	25(23.4)	14(6.9)
52. Senior management role models	193(95.5)	8(4.0)	1(.5)	0
External				
53. Independent auditors	167(82.7)	31(15.3)	2(1.0)	2(1.0)
54. Law enforcement	200(99.0)	1(.5)	1(.5)	0
55. Other external	201(99.5)	1(.5)	0	0
56. <i>Codes Mentioning Enforcement or Compliance Procedures</i>	41(20.3)	95(47.0)	51(25.2)	15(7.4)
<i>Penalties for Illegal Behavior</i>				
Internal				
57. Reprimand	190(94.0)	12(6.0)	0	0
58. Fine	202(100)	0	0	0
59. Demotion	188(93.0)	14(7.0)	0	0
60. Dismissal/Firing	126(62.3)	72(35.6)	3(1.5)	1(.5)
61. Other internal penalty	150(74.2)	51(25.2)	1(.5)	0
External				
62. Legal prosecution	149(73.8)	30(14.8)	13(6.4)	10(4.9)
63. Other external penalty	199(98.5)	3(1.5)	0	0
64. <i>Need to maintain corporation's good reputation</i>	109(53.9)	54(26.7)	24(11.9)	15(7.4)

Note: The above coding scheme is adapted, with minor modifications, from Cressey and Moore, *Corporation Codes of Ethical Conduct*, 1980:10,17,18.

on illegalities because of the assumption that larger corporations have a greater potential for illegal behavior. And last, type of industry was examined on the assumption that crime rates vary by industry (Cressey, 1976).

A comprehensive content analysis of business codes of conduct was undertaken by Cressey and Moore (1980, 1983) in which they surveyed 119 codes collected by the Business Roundtable and the Conference Board. Cressey and Moore analyzed codes of conduct but did not assess the impact of the codes on corporate illegalities. Thus, this study is the next logical step in addressing the effectiveness of codes of conduct. Each of the sixty-four categories of code content is analyzed according to four levels: (1) not discussed—the corporation did not discuss this topic in the code; (2) discussed—contained one or two short sentences on the subject; (3) discussed in detail—contained more than two short sentences, and up to one full paragraph or two short paragraphs; and (4) emphasized—contained two or more full paragraphs on the subject.

The ten major categories in which the sixty-four smaller divisions are nested are as follows:

1. Conduct on behalf of the firm, which includes relations with the U.S. government, relations with competitors, the investing public, foreign governments, consumers, civic and community affairs, environmental affairs, product safety, product quality, and payments or political contributions to governments or government employees/officials;
2. Conduct against the firm, which includes conflict of interest, divulging trade secrets/proprietary information, insider trading information, other white-collar crimes, and personal character matters;
3. Integrity of books and records;
4. Whether the basis of the code is legal or ethical in nature;
5. Specific laws cited, such as antitrust, securities, environment, food and drug and product safety and quality, worker health and safety, bribes or payments to governments or officials, and unfair competition;
6. Specific federal agencies/commission referred to, such as the FDA, EPA, SEC, OSHA, CPSC, FTC, Transportation Department (NHTSA);
7. Internal and external compliance or enforcement procedures. Internal controls by oversight include supervisor surveillance, internal watchdog committees, internal audits, "read and understand" affidavits, routine financial budgetary reviews, and legal department reviews. Internal control by personal integrity includes

information regarding from whom the employee should seek clarification regarding policy matters or reporting the misconduct of self or others, such as to supervisor, internal watchdog committee, corporation's legal counsel, or external authority. Also within the personal integrity classification are compliance affidavits, employee integrity, and upper management as role models. External compliance or enforcement procedures include independent auditors, law enforcement, and "other;"

8. Codes mentioning enforcement/compliance procedures;
9. Penalties for noncompliance (both internal and external). Internal includes reprimand, fine, demotion, dismissal/firing; and external refers to legal prosecution;
10. References to the need to maintain the corporation's "good reputation."

As can be noted from the classification, some categories overlapped and some pertained to areas not quantitatively analyzed, such as antitrust violations. However, information in the codes is assumed to provide a general "flavor" of the corporation—to reflect an overall concern of the upper echelon executives with law-abiding and ethical behavior. Further, reinforcement and enforcement of law-abiding behavior in one area may encourage such behavior in another context within the corporation.

Analysis of the Codes

Table I shows that the desirable behavior pertaining to consumers and the general public—product safety, product quality, environmental affairs, relations with consumers, and civic and community affairs—was discussed in the codes much less frequently than was either conduct against the firm or other activities—such as bribery or questionable payments—on behalf of the firm.

In the category of conduct against the firm, the areas most frequently mentioned were "conflict of interest" and "integrity of books and records." These two categories were discussed by over three-fourths of the codes. It is likely that integrity of books and records was frequently discussed because most of the codes were written or revised in response to the revelation of extensive overseas bribery in the mid-1970s and the passage of the Foreign Corrupt Practices Act (see Cressey and Moore, 1980, 1983).

Almost ninety-one percent of the codes mentioned legal responsibility as the basis of the code. The distinction is made because if the basis of the code is legal, it imitates the criminal law (law, criminal justice procedures, sanctions), but if it is ethical only, no legal apparatus, including

sanctions, is called for (one doesn't "enforce" the Golden Rule). However, an overlap arises because most codes discuss both law and ethics as the basis of the code. For example, the IBM "Business Conduct Guidelines" states:

First, there is the law. It must be obeyed. This book will discuss some of the most important laws that affect our business, and what they require of you.

But the law is the minimum. You also must act ethically. This book discusses some of the basic ethical issues you may confront in our business—a broad range of issues with which, generally speaking, all of us should be familiar.

Federal regulatory agencies and specific laws were rarely mentioned in any of the codes. However, those laws (when mentioned) were most likely (33%) to refer to anti-trust matters.

Approximately eighty percent of the codes discussed enforcement or compliance procedures and twenty-five percent discussed such procedures in detail. Supervisor surveillance was the category most frequently mentioned (41%) for internal oversight procedures. If an employee had questions about legal or ethical policy or wished to report possible illegal or unethical conduct, the codes suggested primarily that s/he contact the corporation's legal counsel (60%). The second most frequently mentioned category (53%) was "other" which was as follows in descending order of frequency—(1) vice president, (2) senior management, (3) president of the corporation, (4) corporate controller, and (5) the chief executive officer of the corporation. It was suggested in 33 percent of the codes that an employee with questions about unethical or illegal conduct seek assistance from the direct supervisor. Only 12 percent of the codes referred to an internal watchdog committee as a source of information and help. However, employees were frequently given several options as to from whom to seek advice on legal and ethical matters.

Compliance affidavits stating that the employee has not engaged in illegal activity within the corporation were mentioned in nearly half (45%) of the codes. However, compliance affidavits were more concerned with behavior against the corporation (conflict of interest) than behavior on behalf of the corporation.

Senior managers as role models are considered to be important in establishing the criminal or anticriminal behavior patterns of a corporation (see Brenner and Molander, 1977). As Peters and Waterman (1982:97,98) note, "Values are clear, they are acted out minute by minute and decade by decade by the top brass; and they are well understood deep in the company ranks." Yet only 4 percent of the codes discussed senior managers as role models and only one (.5%) emphasized the topic.

Penalties for illegal behavior were mentioned to varying degrees. The penalty cited most often (38 percent) for illegal behavior was dismissal or

firing. Legal prosecution was discussed in approximately twenty-six percent of the codes.

The need to maintain the corporation's good reputation was mentioned in less than half the codes, contrary to expectations. It had been assumed that the majority of the codes would show concern for the firm's reputation because of the importance of reputation to the corporation, as well as to the corporate executives. A corporation that loses its "good reputation" and comes to be known as a "career criminal" may not only diminish the prestige of its executives and other employees, it may also lose potential shareholders. However, only 7 percent of the codes emphasized reputation, and the majority of the codes discussing it gave the subject only one or two short sentences.

Overall, the content analysis of the codes of conduct/ethics revealed that corporations are more concerned (in the codes) with conduct against the firm or specific illegal activity—such as bribery—on behalf of the firm than with product safety and quality, environmental affairs, and other issues directly related to consumers and the general public.

IMPACT OF THE CODES ON CORPORATE VIOLATIONS

Analytic Models and Methods

Design considerations are an important issue in any study (Cook and Campbell, 1979)—however, a judgment is required at some point to determine the exact form of the analysis. A number of approaches could have been used in analyzing the data, concluding that the data are naturally suitable for a pooled cross-sectional and time series design. As Campbell and Stanley (1963:57) note, a multiple time series approach helps to minimize threats to internal validity and is regarded as "an excellent quasi-experimental design, perhaps the best of the more feasible designs." Further, pooling techniques capitalize on the two sources of variation in the data—longitudinal and cross-sectional (see Kmenta, 1971; Pindyck and Rubinfeld, 1976).

The data are arrayed by year, from 1973 through 1980, with each corporation's violations counted by year. A variety of regression and logit models are suitable candidates for modeling the relationship between codes of conduct and violations. The primary analysis is ordinary least squares (OLS). Further, in some models a binary dependent variable was utilized, for which OLS is considered inappropriate (see Hanushek and Jackson, 1977). Logit techniques appeared to be the most reasonable approach to the binary variable, both for pragmatic as well as theoretical reasons. Logit models are based on the cumulative logistic probability function and utilize

maximum-likelihood estimation. The dependent variable in a logit model is binary—coded 1 if the value is present and 0 if absent.

A question arose of “which came first”—the violations or the code. Thus, even though codes of conduct may influence a corporation’s violations, it is also reasonable to suspect that prior violations may cause corporations to implement a code of conduct/ethics. Consequently, in some models, the code of conduct is the dependent variable, and in others the corporation’s violations in a given year are the dependent variable. Thus, logit models are utilized to determine the impact of the code, industry, and size on violations. The dependent variable in this model is violations (0, 1) in a given year by an individual corporation. Secondly, in order to examine whether a corporation’s violations resulted in the adoption of a code, code (0.1) is used as the dependent variable in some models with industry, and size as independent variables. (A summary of the basic models is presented in Table 2).

Table 2. Description of Models

<i>Model Number</i>	<i>Dependent Variable</i>	<i>Explanatory Variables</i>	<i>Estimation Technique</i>
1	# violations	Code/no code, industry, size	OLS
2	# violations	Code/no code t-1, industry, size	OLS
3	# violations	Code/no code t-2, industry, size	OLS
4	viol./no viol.	Code/no code, industry, size	Logit
5	viol./no viol.	Code/no code t-1, industry, size	Logit
6	viol./no viol.	Code/no code t-2, industry, size	Logit
7	# violations	Code categories, industry, size	OLS
8	# violations	Code categories t-1, industry, size	OLS
9	viol./no viol.	Code categories, industry, size	Logit
10	viol./no viol.	Code categories t-1, industry, size	Logit
11	code/no code	# violations, industry, size	Logit
12	code/no code	# violations t-1, industry, size	Logit
13	code/no code	# violations t-2, industry, size	Logit

It is also reasonable to believe that these effects were not contemporaneous. The effect of a code of conduct on a corporation's violations may not have taken place until a year or two after the adoption of a code. On the other hand, a corporation's violations may have occurred a year or two before the decision was made to implement a code of conduct/ethics. Motivated by these considerations, models with variables lagged of one and two years ($t-1$ and $t-2$) are incorporated into the analyses.

Only those codes of conduct whose date of adoption could be determined are used in the analyses. Of the two hundred and two codes, fifty are undated, resulting in the analysis of one hundred and fifty-two codes. Although these fifty are omitted from the analyses, it is likely that any bias resulting from their deletion is minimal because there is no particular pattern in those codes that are omitted.

Variable C1 is a code of conduct variable, and is coded 0 before an individual corporation adopts a code, and 1 upon adoption and afterwards. Variable C2 is also a code of conduct variable. It is coded 0 before adoption, 1 for year of adoption, and deleted afterwards. A code can be adopted only once; thus subsequent years are not used in this analysis. Variable V1 is the number of violations in a given year committed by a given corporation. Variable V2 is a binary variable, coded 1 if the individual corporation has 1 or more violations in a given year, and 0 if no violations occurred that year. Industry is grouped into twelve categories. (There were originally thirteen, but the tobacco industry was deleted because there were so few corporations in that industry). Corporation size is measured by the natural logarithm of sales.

The Models and Findings

Models 1, 2 and 3 (See Table 3) use number of violations by year by individual corporation (V1) as the dependent variable. Model 1 includes a contemporaneous code explanatory variable (C1) while in Model 2 the code variable is lagged one year, and in Model 3 lagged two years. The codes of conduct variables are not statistically significant in any of the models. The variables that are statistically significant are those related to a higher number of violations—industry (food, drug, medical supply) and size of the corporation (in log of sales).

Models 4, 5, and 6 (Table 4) are corresponding logit models, with a binary violations variable (V2) as the dependent variable. These three analyses again vary only in lag structure—contemporaneous, lagged one year, and lagged two years. The results are similar to the OLS models in that the code of conduct variable had no statistically significant impact on violations, and industry (food, drug, medical supply) and size of the corporation (log of sales) had the greatest impact.

Table 3. Impact of Code/no code, Industry and Sales on Number of Violations

Variable	Model 1	Model 2	Model 3
Intercept	-.77 (-4.25)	-.79 (-3.96)	-.78 (-3.64)
Code/no code	-.03 (-.68)	-.06 (-1.17)	-.09 (-1.42)
Food industry	.30 * (2.47)	.32 * (2.39)	.25 (1.71)
Textiles, paper industry	.09 (.73)	.08 (.59)	.06 (.41)
Drug industry	.67 * (5.45)	.64 * (4.80)	.56 * (3.85)
Petroleum industry	-.13 (-.87)	-.12 (-.76)	-.11 (-.64)
Plastic, cement industry	.01 (.07)	.001 (.007)	-.02 (-.09)
Iron and steel industry	.10 (.77)	.10 (.70)	.09 (.60)
Industrial machinery industry	.94 (.78)	.09 (.71)	.08 (.58)
Electrical/Industrial apparatus	.07 (.48)	.06 (.39)	.05 (.27)
Transportation equipment	.06 (.49)	.05 (.35)	.04 (.30)
Medical Instruments/supply	1.32 * (8.43)	1.46 * (8.47)	1.55 * (8.33)
Miscellaneous manufacturing	.14 (.87)	.14 (.77)	.12 (.63)
Log of sales	.12 * (6.00)	.12 * (5.72)	.13 * (5.40)

*Indicates statistical significance at .05 level or better. Coefficient is indicated first and T-Ratio is in parentheses. Dependent variable = Number of violations by corporation by year (OLS).

Code/no code is contemporaneous in Model 1, lagged one year in Model 2, and lagged two years in Model 3.

Diversified is the base industry.

Models 7 and 8 (not shown in the tables) and 9 and 10 (Table 5) examine the impact of code *content* on individual corporation's violations. Models 7 and 8 use ordinary least squares, while Models 9 and 10 are logit models. Code content categories, like the C1 variable itself, are coded 0 before adoption of a code and 1 if the code has that attribute in the year of adoption and thereafter. The code categories used in the analyses were chosen for several reasons. As mentioned previously, the original sixty-four categories were used to provide the "flavor" of the corporation—to reflect

Table 4. Impact of Code/no code, Industry and Sales on Violations (binary)

<i>Variable</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>
Intercept	-7.47 (8.95)	-7.32 (8.46)	-7.12 (7.90)
Code/no code	.10 (.49)	.008 (.00)	-.13 (.54)
Food industry	1.21 * (2.69)	1.15 * (2.50)	.93 * (1.96)
Textiles, paper industry	-1.03 (1.43)	-1.05 (1.45)	-1.09 (1.50)
Drug industry	1.72 * (3.85)	1.62 * (3.54)	1.40 * (2.98)
Petroleum industry	-.91 (1.57)	-.87 (1.49)	-.81 (1.35)
Iron and steel industry	-.14 (.22)	-.13 (.20)	-.12 (.20)
Industrial machinery industry	-1.11 (1.69)	-1.10 (1.65)	-1.07 (1.60)
Electrical/Industrial apparatus	-.66 (.80)	-.68 (.81)	-.70 (.83)
Transportation equipment	-.27 (.51)	-.44 (.81)	-.50 (.89)
Medical Instruments/supply	1.50 * (2.78)	1.46 * (2.62)	1.43 * (2.46)
Log of sales	.68 * (7.46)	.69 * (7.16)	.69 * (6.81)

*Indicates statistical significance at .05 level.

Coefficient is indicated first and T-Ratio follows in parentheses.

Dependent variable = binary violations/no violations (Logit).

Code/no code is contemporaneous in Model 4, lagged one year in Model 5, and lagged two years in Model 6.

Both plastic/cement and miscellaneous manufacturing industries are perfect classifiers and are dropped from the analysis. Diversified is the base industry.

an overall concern of upper echelon executives with law abiding and ethical conduct. Of the sixty-four code categories, only twelve were discussed by more than half the codes. Certain categories overlapped and are therefore excluded. For example, "payments to government officials" overlapped with "integrity of books" (re the Foreign Corrupt Practices Act). Further, these overlapped with "relations with the United States government" and "relations with foreign governments." (Of course, this category is affected by the number of corporations in the study who deal abroad.) Therefore, only the two latter categories (which do not overlap with each

Table 5. Impact of Code Categories, Industry and Size on Violations (binary)

<i>Variable</i>	<i>Model 9</i>	<i>Model 10</i>
Intercept	-8.27 (9.44)	-8.02 (8.91)
Food industry	1.54 * (3.37)	1.48 * (3.20)
Textiles, paper industry	-.08 (1.09)	-.78 (1.07)
Drug industry	2.13 * (4.69)	1.99 * (4.31)
Petroleum industry	-1.26 * (1.98)	-.96 (1.51)
Iron and steel industry	-.13 (.20)	-.03 (0)
Industrial machinery industry	-1.10 (1.59)	-.96 (1.39)
Electrical/Industrial apparatus	-.42 (.49)	-.34 (.40)
Transportation equipment	.06 (.10)	.02 (0)
Medical instruments/supply	1.83 * (3.32)	1.75 * (3.10)
Miscellaneous manufacturing	-6.31 (.28)	-6.43 (.26)
Log of sales	.76 * (7.57)	.74 * (7.18)
Questions to supervisor	-.69 (1.53)	-1.0 (1.83)
Questions to legal counsel	-.13 (.28)	-.07 (.14)
Questions to "other"	-.31 (.79)	.04 (.10)
Compliance affidavit	.50 (1.29)	.45 (1.02)
Employee integrity	.36 (1.01)	.48 (1.19)
Firing penalty	.35 (.79)	.18 (.36)
Corporation reputation	1.40 * (3.34)	1.13 * (2.41)
Relations with U.S. government	-.04 (0)	-.16 (.17)
Relations with customers/ suppliers	-.32 (.79)	-.43 (.96)
Relations with foreign governments	.69 (.88)	.97 (.91)

Table 5. (Continued)

<i>Variable</i>	<i>Model 9</i>	<i>Model 10</i>
Conflict of interest	-.76 (1.83)	-.87 (1.87)
Legal review	-.53 (.68)	-.68 (.77)

*Indicates statistical significance at .05 level or better.

Coefficient is indicated first and T-Ratio is in parentheses.

Dependent variable is binary violations/no violations (Logit).

Code categories are contemporaneous in Model 9 and lagged one year in Model 10.

Plastic/cement is a perfect classifier and is dropped from the analysis. Diversified is the base industry.

other) are included in the analyses. To do otherwise would bring about problems with collinearity.

On the other hand, several categories are included in the analyses even though they are mentioned by less than half the codes, but were mentioned frequently enough to warrant inclusion. Categories considered sufficiently important to warrant inclusion are "questions about policy or reporting misconduct to supervisor" (34 percent), "employee integrity" (49.5 percent) "firing" (38 percent) as a penalty for noncompliance, and "importance of the corporation's reputation" (46 percent). "Firing" is the penalty most frequently mentioned (76 codes) as the sanction for noncompliance. And "reputation of the corporation" is assumed to have a direct bearing on a corporation's violations, in that corporations concerned with their reputation may be (or may be expected to be) less likely to have illegalities than corporations whose codes do not reflect such concern.

Models 7 and 8 utilize ordinary least squares regression with the violations by year by corporation as the dependent variable. In Model 7 the statistically significant code categories are "compliance affidavit," "employee integrity," and "conflict of interest." In Model 8, the categories are lagged one year and the statistically significant code categories are "employee integrity" and "conflict of interest." In these models, "compliance affidavit" and "employee integrity" are associated with a higher number of violations, while "conflict of interest" is associated with fewer violations.

Models 9 and 10 (Table 5) examine the same variables, but are based on a logit model with a binary dependent variable for violations by year by corporation (V2). Model 9 includes the contemporaneous code category variables. The findings indicate that the only statistically significant code

category is "reputation of the corporation" and its presence is associated with a higher (rather than lower) number of violations. In Model 10, the code categories are lagged one year. The results are the same as those for Model 9. "Reputation of the corporation" is the only statistically significant code category, and once again its presence is associated with a higher number of violations.

Table 6. Impact of Number of Violations, Industry, and Size on Code of Conduct

Variable	Model 11	Model 12	Model 13
Intercept	-6.5 (7.25)	-6.37 (6.85)	-6.10 (6.41)
Number of violations	-.03 (.24)	.08 (.90)	-.05 (.47)
Food industry	.95 (.71)	.84 (1.49)	.79 (1.37)
Textiles, paper industry	.78 (1.38)	.70 (1.23)	.67 (1.16)
Drug industry	2.20 * (3.61)	2.05 * (3.31)	2.20 * (3.52)
Plastic, cement industry	1.06 (1.19)	1.06 (1.17)	1.02 (1.13)
Iron and steel industry	1.12 * (1.94)	1.02 (1.74)	1.02 (1.71)
Industrial machinery industry	2.33 * (4.15)	2.29 * (4.00)	2.19 * (3.74)
Electrical/Industrial apparatus	.76 (1.13)	.76 (1.12)	.73 (1.06)
Transportation equipment	2.19 * (3.79)	1.95 * (3.23)	1.92 * (3.15)
Medical Instruments/supply	.96 (1.41)	.88 (1.28)	.94 (1.36)
Miscellaneous manufacturing	2.62 * (3.58)	2.62 * (3.52)	2.58 * (3.41)
Log of sales	.50 * (5.14)	.50 * (4.89)	.49 * (4.62)

*Indicates statistical significance at .05 level or better.

Coefficient is indicated first and T-Ratio is in parentheses.

Dependent variable is binary code/no code (coded 0 before adoption of code, 1 the year of adoption, and deleted afterwards).

Number of violations is contemporaneous in Model 11, lagged one year in Model 12 and lagged two years in Model 13.

Diversified is the base industry. The petroleum industry is a perfect classifier and is dropped from the analysis.

Models 11, 12, and 13 (Table 6) examine the impact of violations on codes of conduct. Here, the question is, are a corporation's violations associated with the adoption of a code of ethics/conduct? In these logit models, the binary dependent variable (code/no code) is taken to be a function of the contemporaneous violations by individual corporations lagged one and two years. In Model 11, the statistically significant variables are the drug industry, iron and steel products industry, industrial machinery industry, transportation equipment industry, miscellaneous manufacturing industry, and corporation size (in sales). These variables are all associated with a higher number of codes of ethics/conduct. In Model 12, the contemporaneous number of violations is replaced by the value of that variable lagged one year. The statistically significant variables in this model are the drug industry, industrial machinery industry, transportation equipment industry, miscellaneous manufacturing industry, and size (in sales). The results are the same for Model 13, in which the number of violations is lagged two years. Thus, while adoption of a code may be associated with certain industries and size of the corporation (the larger the corporation, the more likely to adopt a code of conduct), it is not based on a corporation's previous violations. In all three models, a corporation's violations, whether contemporaneous, lagged one year, or lagged two years, have little impact on the adoption of a code of ethics/conduct.

DISCUSSION AND INTERPRETATION

The principal finding is that there is little relationship between codes of conduct and corporate violations, contrary to the notion that the codes serve as an effective form of self-regulation. In this analysis OLS techniques were utilized because they are widely understood and are easily interpreted. Logit techniques were utilized for both pragmatic and theoretical reasons. The logit findings essentially replicated the substantive story of the OLS findings. Specifically, (1) violations do not appear to have an impact on the adoption of a code of ethics by a corporation; (2) there is a slight but not statistically significant relationship between the adoption of a code and the number of a corporation's violations; (3) contrary to expectations, the presence of specific categories of code content appear to be associated with a higher number of a corporation's violations, rather than the opposite (with the exception of the "conflict of interest" category); and (4) type of industry and size of a corporation have a far greater impact on violations than does a code of ethics.

The association of a higher number of violations by a corporation with specific code categories was an unanticipated finding. As mentioned ear-

lier, sixty-four categories of code content were constructed. Codes of ethics that discussed "compliance affidavits" by employees, "employee integrity," and "maintaining the reputation of the corporation" appear to be written by executives in corporations with a higher number of violations. It is possible that interest in employee integrity and compliance affidavits may arise from previous (perhaps undetected at the federal level) illegal activity within the corporation. It is also possible that, contrary to expectations, the concern for the reputation of the corporation is more necessary for corporations and corporate executives that have reputations for being unethical (or have been involved in undetected illegalities, or crimes—such as antitrust violations—not included in this study). Perhaps executives in law-abiding corporations do not feel the need to convince others of their "good reputation," while executives in corporations with a corporate culture that is changing from procriminal to anticriminal, may find it necessary to call attention to the need for concern with their corporation's reputation.

Clearly, type of industry and larger size of the corporation outweigh by far any impact that codes of conduct have on corporate violations. The results for industry and size were similar for all models using some variation of violations as the dependent variable. Generally, the food industry, the drug industry, and the medical instrument and supply industry are associated with a higher number of violations across all models. These industries also had the highest rates of recidivism, with the medical instrument and supply industry rated as "number one." These three industries are regulated by the Food and Drug Administration, which appears to scrutinize its charges more closely than the other regulatory agencies in this study. Of course, the drug, food, and medical instrument supply industries face daily issues of health and well-being of consumers, which may lead to stricter regulation. On the other hand, at least part of the variation may stem from behavior patterns that are less than law-abiding and may be more acceptable in some industries than in others. As Cressey (1976) notes, industries are like neighborhoods in that corporations are exposed to industry-wide norms—norms that may provide a ratio of behavior patterns that is excessively procriminal, just as a youth who moves into a neighborhood is confronted with behavior patterns that may provide an excess of procriminal to anticriminal behavior patterns. In such industries, corporate crime may come to be viewed as nothing more than a way of doing business (see Smith, 1969; Geis, 1973; 1982).

CONCLUSIONS

From the analyses, it becomes clear that the relationship between codes of ethics/conduct and corporate violations is minimal. Codes of conduct are not evidence of self-regulation—they do not result in fewer violations.

There are some who contend that codes are merely window-dressing. On the other hand, as a potential form of self-regulation, the codes cannot be overlooked. To change behavior patterns requires changing the corporate culture, and the codes are one step in that direction. However, as Bowie (1984) notes, the codes alone cannot make an ethical and legal environment. If corporate leaders are sincere in their intent to utilize codes of ethics, the codes must be written in clear language which specifies enforcement procedures and penalties for noncompliance. Reinforcement contingencies must also be an integral part of adherence to the codes.

It is now widely accepted (March and Simon, 1958; Rose-Ackerman, 1978; Peters and Waterman, 1982) that profit motivation is less important than social and social psychological variables in organizational outcomes. Further, senior management plays an integral part in setting the legal or illegal tone of a corporation (Silk and Vogel, 1976; Brenner and Molander, 1977; Clinard and Yeager, 1980; Fisse and Braithwaite, 1983; Clinard, 1983; Pascale, 1985). As Hambrick and Mason (1984) suggest, characteristics of top level executives appear to be related to organizational outcomes. Although Hambrick and Mason do not specifically refer to illegal/legal outcomes, their analysis can be extended to such behavior. Organizations tend to reflect the norms and values of upper echelon executives. Because top level executives are regarded as role models for socialization into the corporate group and culture, their verbalizations and behavior are extremely important to those below them, as well as those who are equals. Thus, top level executives can demonstrate procriminal behavior patterns as well as anticriminal behavior patterns (see Sutherland, 1949/1961, 1983). While the writing of a code of ethics can be considered an example of an anticriminal behavior pattern, it cannot be successful unless properly reinforced (see Burgess and Akers, 1966; Akers, 1985). Gellerman (1986) points out that much corporate misconduct can be attributed to upper-level management failures and fraud. The question then becomes, "How do upper-level executives respond to the code of ethics which they have participated in drafting?" As Baldwin and Baldwin (1981) note, words *and* behavior must have a high correlation to be effective. Mere words (whether verbalized or written) are not likely to have an impact on either behavior patterns or the corporate culture (see Ouchi, 1981). For example, if upper-level executives regard and treat the codes of ethics as nothing more than a public relations maneuver, it is likely that middle managers and the lower echelons will regard the codes similarly. On the other hand, if top level executives not only verbalize legal and ethical behavior as espoused in the codes but also engage in behavior that matches the words, as well as reward legal and ethical behavior in others, then corporate employees will be more likely to take the codes' intent and content seriously as well.

The findings from this study indicate that it cannot be concluded that

codes of ethics demonstrate either (1) social responsibility, (2) a corporate culture which promotes anti-criminal behavior patterns, or (3) self regulation. While the codes hold the promise of aiding in the accomplishment of all three objectives, it is up to corporate leaders to implement the means by which these objectives can be attained. Corporate leaders must examine their codes, their own motives, and current reinforcement patterns if codes of ethics are to be used effectively in the future.

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THE VALUES OF CORPORATE MANAGERS AND THEIR CRITICS: AN EMPIRICAL DESCRIPTION AND NORMATIVE IMPLICATIONS

William C. Frederick and James Weber

The normative interplay of organizations and their environments tends to create a steady stream of policy clashes. Many such conflicts occurred from the 1960s through the mid-1980s, when business corporations were faced with environments that were highly turbulent and populated with groups whose central interests clashed with corporate goals and policies. Most notable among these groups were consumer activists, environmentalists, minority groups, women's groups, labor unions seeking social as well as economic goals, a variety of religious organizations and coalitions, and an impressive number of government agencies created to cope with the demands of these groups and the public generally (Vogel, 1978; 1983).

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The ensuing policy struggles were carried on with such an intensity, not to speak of frequent bitterness and hard feelings on both sides, as to suggest a truly fundamental divergence of interests of the kind one normally would associate with a clash of values. If one could assume that an organization's goals and policies were somehow expressive of value systems within the organization—and if the value systems characteristic of contending groups were sufficiently divergent—then it would follow intuitively that the ultimate policy differences between any two such groups might be traced in part to differences in values.

The study reported here is an attempt to describe and compare the personal value preferences of corporate managers, members of a labor union, and a community activist group. Following the empirical analysis is an assessment of the normative significance of these value configurations and the effect they may exert on a range of policy clashes between business corporations and their social critics.

The study's concentration on the personal values of organizational members, in contrast to institutionalized organizational values, limits the explanatory power of the findings to only one dimension of the overall value structure of the groups studied. Nevertheless, clarity regarding the range of personal value differences, while revealing less than the entire story, may enhance general understanding of the function of values in organizational life and the possible effect they exert on organizational policies and goals.

Three theoretical orientations embedded firmly in the management literature were used to position and inform this inquiry. Each one assigns, at least implicitly, an important role to values.

Lee E. Preston and James E. Post (1975) described an interpenetrating systems model of management-and-society relations. This model

. . . opens up the possibility . . . of considering the potential differences, conflicts, and compatibilities among the goals of micro-organizations and those of society at large. . . . [It] can accommodate both the separateness and possible conflict of managerial and societal goals on one hand and the process of managerial/societal goal adjustment on the other. Society may take into account and seek to influence the goals of the managerial units; and they, in turn, may take into account and seek to influence those of society at large (1975:26).

It seems reasonable to posit that values comprise a portion of such an interpenetrating systems model and would help explain some of the "potential differences, conflicts, and compatibilities," although Preston and Post do not themselves use the term "values," preferring instead to speak of organizational and societal "goals." If values were indeed to be included within the model, then it would be necessary to describe them and know what role they play in the interactions between management and society.

Equally relevant in a theoretical sense is the stakeholder concept, outlined comprehensively by R. Edward Freeman (1984). Freeman has sought not only to describe and explain the interrelationships between business firms and their environments, but also to provide policy and goal-setting guidelines for practicing managers. He contends that management-and-society interactions can best be understood and managed by focusing attention on corporate stakeholders: "... a stakeholder is any group or individual who can affect, or is affected by, the achievement of a corporation's purpose. . . . The stakeholder concept provides a new way of thinking about strategic management—that is, how a corporation can and should set and implement direction" (1984:vi). One of the steps in achieving this understanding is to discover the values that guide the actions of the company and its various stakeholder constituencies. The values of individual actors, as well as the organizations' respective institutionalized values, need to be known. "The final task [in the values analysis process] is to explicitly recognize the conflicts and inconsistencies among organizational [i.e., corporate] values and values of stakeholders" (1984:99).

Business policy and strategic planning represent a third theoretical orientation that assigns significance to values. "... there is no way to divorce the decision determining the most sensible economic strategy for a company from the personal values of those who make the choice. . . . the personal desires, aspirations, and needs of the senior managers of a company actually *do* play an influential role in the determination of strategy . . . [and] we must accept not only the inevitability but the desirability of this intervention" (Christensen, Andrews, & Bower, 1978:448,451). This relationship between values, decisions, and policies is posited also by other management scholars (Guth & Tagiuri, 1965; England, 1967, 1975; Christensen, Berg, Salter, & Stevenson, 1985; Sturdivant, Ginter, & Sawyer, 1985).

Christensen, Andrews, and Bower contend that this personal values component calls for two kinds of reconciliation if a company's strategy is to be effective. One is to adjust the differences that exist between a chief executive's personal value preferences and the best economic course of action for the company. Another is a twofold task of moderating the personal value disagreements that arise within the company's managerial cadre as well as reconciling any differences between all of those collective managerial values and the best economic strategy for the company.

The study described here is premised on a belief that a third type of values reconciliation is implicit in the acceptance and use of the interpenetrating systems model and the stakeholder concept as described above. The values that suffuse and tend to separate corporations and diverse stakeholder groups—those that help each type of organization to define its goals and purposes while possibly contributing to policy clashes

with others—also need to be known and reconciled if progress is to be made in resolving such policy differences. A knowledge of the values of the principal actors may clarify actual or potential policy differences, may objectify the search for acceptable policy alternatives, and may in the longer run contribute to an accommodation and a workable adjustment of value clashes and policy conflicts.

Hence, all three of these theoretical orientations—the interpenetrating systems model, the stakeholder concept, and the concept of corporate strategic planning and policy formulation—depend to some extent on an explanation of the role played by values as corporations interact with the environment. The present study's purpose is to contribute to such an explanation and clarification.

METHODOLOGY

The empirical study of values does not have a long history and thus the number and variety of reliable methods that have been tested repeatedly remain limited. The general methodological approach used here was first developed by Milton Rokeach (1973, 1979), and it has been considerably expanded and applied to various management contexts by Barry Z. Posner and his research associates (Posner & Munson, 1979, 1981; Schmidt & Posner, 1982, 1983, 1984; Powell, Posner, & Schmidt, 1984). In this approach, "value" is given a specific definition, two classes of values are postulated, and an instrument is administered to elicit the value preferences of respondents.

Definition of Value

A "value" is defined by Rokeach as "... an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (1973:5). This definition emphasizes that values are *beliefs*, that they may be considered preferable at either a *personal* or *social* level of comprehension, and that these beliefs may be oriented toward both *near-term behavior* ("modes of conduct") and *more far-distant purposes and meanings* ("end-states of existence"). The latter type of belief is called a "terminal value," while the former is known as an "instrumental value." The total number of such beliefs held by any given adult is not great, according to Rokeach. Terminal values number about "a dozen and a half and ... the total number of instrumental values is several times this number, perhaps five or six dozen" (1973:11). Within the personality and comprehension of any given person, these values are interrelated to one

another, forming “. . . a hierarchically organized system, wherein each value is ordered in priority or importance relative to other values” (1973:6). In the Rokeach view, these beliefs involve, or are necessarily related to, cognitive, affective, and behavioral processes. As cognitions, they represent “not only . . . individual needs but also . . . societal and institutional demands” (1973:20). It is this conception of value that was used in this study to identify, classify, and order personal value preferences.

Principal Research Instrument

The principal research instrument used was a modified version of the Rokeach Value Survey (RVS) (Rokeach, 1973, 1979). The RVS consists of two sets of eighteen values each, one a list of terminal values and the other a list of instrumental values, ordered alphabetically. Each value term or phrase is amplified by accompanying parenthetical qualifiers intended to clarify the core meaning of the value. An example is “A comfortable life (a prosperous life)”; another is “Ambitious (hard-working, aspiring).” Not only are these qualifying phrases useful to a respondent; they also are quite important in interpreting the data. A complete list of the two sets of values is in Appendix A of this paper.

The RVS was originally designed to elicit from individual respondents a rank ordering of the values in each of the two sets of values. When administered to one or more groups, the results yielded median scores for each of the values, as well as a composite rank order of the values. Various demographic comparisons can be made, showing, for example, that Baptists' median score for “family security” is 4.18 while Episcopalians' median ranking is higher at 2.44; or that “forgiving” is given an 8.23 median ranking by females while males assign it a 6.43 ranking (1973:364–419). J. M. Munson and Barry Z. Posner (1980) subsequently demonstrated that the RVS would yield reliable comparable results if modified to permit respondents to *rate* the two sets of values on a Likert scale. This modification carries a significant analytic advantage in that a greater range of statistical manipulations are possible when working with ratings rather than rankings. For this reason, the modified version of the RVS was used here, employing a seven-point Likert scale anchored at one end with the phrase “of lesser importance” keyed to the number “1” and at the other end by “of greater importance” keyed to the number “7.” The questionnaire instruction was “Please indicate the importance of each value to YOU, as a guiding principle in YOUR life, by placing a check in the appropriate box. As you work, CONSIDER EACH VALUE IN RELATION TO ALL THE OTHER VALUES LISTED ON THAT PAGE.” Terminal values were listed on one page and instrumental values on a second page. Demographic data were requested on a third page.

Methodological Qualifications and Reservations

The authors are fully aware of and concerned about the inadequacy of any methodological approach that relies on a research instrument of this general type. It exhibits serious weaknesses regarding (1) the reliability of self reporting, (2) social desirability bias, (3) cerebral versus behavioral responses, (4) respondents' interpretations of value terms, (5) group rating bias, and (6) the noncontextual testing of value preferences which omits the respondent's specific organizational involvement, does not measure the presence and relative influence of organizational values, and lacks reference to a specific problem or controversy. The analysis and findings presented here suffer these possible shortcomings and should be duly noted by the reader.

Populations Sampled

Three populations were sampled, each one by means of a mailed questionnaire including the modified RVS: a group of corporate managers drawn from many different companies; members of a steelworkers' union local; and persons affiliated with a community-wide organization concerned about plant closures.

The corporate executives. This group, polled in 1985, consisted of 345 graduates of a university's Executive MBA Program. The response rate was 64 percent ($N = 220$). They represented a wide range of middle- and upper-level management from a variety of companies. They were from 28 to 68 years of age, with a mean age of 42 years. Male executives constituted 88 percent of the subjects, with nearly all (96 percent) reporting their ethnic origin as white. The average executive had compiled 19.5 years of work experience, typically beginning his/her career at the age of 22. Most (71 percent) were from nonservice industries, typically manufacturing.

The steelworkers' union local. A random sample of 1000 members of a steelworkers union local was surveyed. Its response rate was 15 percent ($N = 146$). At the time of the survey (1986) the steelworkers' union was suffering the effects of a severe decline in the steel industry. Many jobs had been lost permanently. Union membership in this local had plummeted 50 percent in the previous two years.

Respondents were from 25 to 62 years of age, with a mean age of 41.4 years. Nearly all were male (99.3 percent) and white (92.5 percent). Three-fourths of the respondents were currently employed. The union members were classified by three types of work: craft workers (45.4 percent), op-

eratives (31.9 percent), and general laborers (19.1 percent). The average union member had 20.3 years in the union—meaning that he began working in the steel mills at the age of 21 and had been in the union his entire working life.

The community activist group. In the wake of serious economic decline in one of the nation's older industrial areas, this group—to be called "activist group" here—was formed in the late 1970s. Its purpose was to initiate long-term policies and programs intended to reverse the economic decline of a three-state region. A principal policy focus was rejuvenation of the regional steel industry, and it was particularly critical of the investment policies and plant-closing decisions of the region's steel companies. One of its primary aims was to be given the power of eminent domain that could then be used to acquire abandoned industrial facilities. The group was instrumental in forming an authority made up of several local municipalities, which was granted the power of eminent domain by an act of the state legislature.

The activist group's mailing list included 760 names, 234 of whom provided a response rate of 31 percent when surveyed in 1986. Respondents averaged 43.9 years of age. Most were male (71.2 percent) and white (90.6 percent). A large majority were employed (85 percent). Of those without jobs, nearly half had been jobless for two years or less and 28 percent for more than two years. Some 23 percent were retired. The group is a melting pot of occupations, from a state legislator to a barber to an unemployed lumberjack. The largest representative occupation in the sample is clergy (41), followed by directors (37), lawyers and educators (31), and steelworkers (30). Professional work was listed as the type of work most often performed (40.6 percent), with administrative work (14.5 percent) and craft-operatives-laborers' work (13.2 percent) less represented. The sample also is characterized by a 3-to-1 representation from not-for-profit versus profit organizations. Quite clearly, it was a community group at once more diverse in occupational base than either the corporate executives or the union local.

Statistical Procedures

For each of these groups, the following statistical analyses were conducted. Frequency analysis yielded mean scores for each of the values rated by the respondents, mean and median scores for the demographic data, and distribution patterns for both the value ratings and demographic data. Analysis of variance (ANOVA) revealed within-group differences. A oneway test analyzed and compared each pair of mean value ratings. For example, when looking at the five groups of executives divided by

age increments (28–34, 35–39, 40–44, 45–49, 50–68), the oneway analysis made ten comparisons—one for each paired combination.

Factor analysis was used to develop a “values profile” for each of the three groups. Factor-analytic techniques allow one to discover “whether some underlying patterns of relationships exist such that the data may be ‘rearranged’ or ‘reduced’ to a smaller set of *factors* or *components* that may be taken as *source variables* accounting for the observed interrelations in the data” (Kim, 1975:469). The results are expressed in two forms. First, each factor (or cluster of interrelated variables) has a percentage of the total variance affixed to it. The first factor is the most important determinant of the population since it accounts for the most variance of any of the factors. Second, the influence (loading factor) of each variable (i.e., value) upon each factor (i.e., value cluster) is computed. The final outcome of these calculations is an arrangement of the values in clusters, including some indication of which value was the most influential in any given cluster. These value clusters constitute what is called here a “values profile” of the groups surveyed.

A t-test was used to discover differences and similarities in the ways any two of the groups rated any given value. Discriminant analysis identified the values that most clearly distinguish one group from another.

HYPOTHESIS, ANALYSIS, AND FINDINGS

The hypothesis tested was as follows:

The personal value preferences of a group of corporate managers will differ from the personal value preferences of the members of organizations that have been critical of corporate social performance and policy.

An accompanying assumption (not testable with the collected data) is that these value differences contribute to the tensions and conflicts that occur between corporations and their social critics over organizational goals and policies.

For each of the three groups, analysis produced several distinct ways to view the personal value preferences of those responding: the value ratings, a rank order of preference based on the means of the group ratings, within-group differences, and a values profile based on factor analysis. We refer to this comprehensive pattern of value preferences revealed for each group as a **Personal Value Preference (PVP) Structure**. T-test analysis and discriminant analysis permitted a comparison of the major differences and similarities in value preferences found between the groups, with the major focus being a comparison of corporate managers’ values with the values of the two corporate stakeholder groups.

The Personal Value Preferences of Corporate Executives

Group rankings. Based on the means of the group ratings for each value, the executives as a group ranked Self-respect (1st), Family Security (2nd), and Freedom (3rd) highest among the terminal values, and Salvation (16th), World of Beauty (17th), and Pleasure (18th) the lowest. The instrumental values Honest (1st), Responsible (2nd), and Capable (3rd) were top-ranked, with Cheerful (16th), Clean (17th), and Obedient (18th) at the bottom. Table 1 contains a complete listing of the values, their mean ratings, and the rank order assigned by the executives and the other two groups.

Within-group differences. Few significant differences were found within the executive group. Males rated Family Security, Salvation, and Obedient significantly higher than did females. Women, however, rated Self-respect, True Friendship, and Intellectual higher than men. The over-40 age group rated Helpful, Honest, and Responsible significantly higher than the under-40 group. Overall, the executive group was found to be generally homogenous when considering such potentially differentiating factors as sex, age, type of work, job title, years of corporate business experience, and type of employing organization.

Values profile. Factor analysis revealed five terminal value factors and four instrumental value factors. The executives' terminal value preferences include a cluster of values we have labeled *Personal Achievement/Ego Satisfaction*. This factor accounts for 52 percent of the variance and is most powerfully represented by A Sense of Accomplishment, Self-respect, and Social Recognition. The other four factors, each one successively accounting for less variance, were Preferred Social Conditions (15 percent); Personal and Interpersonal Relations (14 percent); Physical Comfort (11 percent); and Basic Life Meaning (8 percent). Their principal instrumental value factor was *Socially Accommodative Traits* (60 percent of the variance); it includes Obedient, Cheerful, Polite, Self-controlled, Clean, and Loving. The remaining instrumental value factors were Mental Qualities and Traits (17 percent); Personal Integrity/Social Support (14 percent); and Pragmatic Work Traits (9 percent).

The Personal Value Preferences of Union Members

Group rankings. Based on the means of the group ratings, union members ranked the terminal values Family Security (1st), Freedom (2nd), and Happiness (3rd) the highest, and A World of Beauty (16th), An Exciting Life (17th), and Social Recognition (18th) the lowest. Responsible (1st), Honest (2nd), and Courageous (3rd) were the union members' most highly

Table 1. Mean Value Ratings (Ranks)

<i>Terminal Values</i>	<i>Executives Mean (Rank)</i>	<i>Unions Mean (Rank)</i>	<i>Activists Mean (Rank)</i>
A Comfortable Life	5.08 (10)	6.01 (6)	4.13 (17)
An Exciting Life	5.17 (8)	4.94 (17)	5.13 (13)
A Sense of Accomplishment	5.66 (4)	5.68 (9)	6.00 (6)
A World at Peace	4.62 (13)	5.64 (10)	6.13 (2)
A World of Beauty	4.14 (17)	5.24 (16)	5.30 (12)
Equality	4.52 (14)	5.55 (13)	6.14 (1)
Family Security	6.04 (2)	6.82 (1)	6.12 (3)
Freedom	6.00 (3)	6.58 (2)	6.04 (5)
Happiness	5.31 (5)	6.37 (3)	5.60 (10)
Inner Harmony	5.16 (9)	6.00 (7)	5.43 (11)
Mature Love	5.22 (7)	6.10 (5)	5.65 (9)
National Security	4.67 (12)	5.95 (8)	4.22 (16)
Pleasure	4.01 (18)	5.52 (14)	3.90 (18)
Salvation	4.19 (16)	5.45 (15)	4.72 (14)
Self-respect	6.18 (1)	6.30 (4)	6.11 (4)
Social Recognition	4.50 (15)	4.75 (18)	4.58 (15)
True Friendship	4.75 (11)	5.60 (11)	5.69 (8)
Wisdom	5.20 (6)	5.56 (12)	5.94 (7)
<i>Instrumental Values</i>			
Ambitious	5.71 (4)	6.03 (6)	5.09 (14)
Broadminded	5.42 (7)	5.73 (11)	5.68 (7)
Capable	5.92 (3)	6.05 (5)	5.79 (5)
Cheerful	4.65 (16)	5.54 (15)	5.11 (13)
Clean	4.37 (17)	5.89 (7)	4.40 (17)
Courageous	5.41 (8)	6.13 (3)	6.14 (3)
Forgiving	4.84 (13)	5.28 (17)	5.61 (8)
Helpful	4.81 (14)	5.57 (14)	6.15 (2)
Honest	6.09 (1)	6.50 (2)	6.26 (1)
Imaginative	5.17 (10)	4.93 (18)	5.47 (10)
Independent	5.60 (5)	6.11 (4)	5.45 (11)
Intellectual	5.22 (9)	5.44 (16)	5.57 (9)
Logical	5.57 (6)	5.67 (12)	5.13 (12)
Loving	4.96 (12)	5.77 (9)	5.77 (6)
Obedient	3.73 (18)	5.58 (13)	4.13 (18)
Polite	4.66 (15)	5.82 (8)	4.79 (16)
Responsible	6.02 (2)	6.51 (1)	6.06 (4)
Self-controlled	5.08 (11)	5.73 (10)	5.03 (15)

ranked instrumental values, with Intellectual (16th), Forgiving (17th), and Imaginative (18th) ranked at the bottom. See Table 1.

An unanticipated result of using ratings rather than rankings was a skewed response bias toward the high end of the rating scale by union members. To neutralize this bias for comparative purposes, each response for all three groups was centered around the respondent's average score

(Σ responses/18) by computing the deviation of any one response (response – average score = deviation) from the average score. Just why this skewing occurred is not known, although it might reflect social desirability factors, relatively less familiarity with pencil-and-paper testing, psychological attitudes toward university-based “academic” research, or other unknowns.

Within-group differences. Fewer significant differences were found within the union members’ group than among the executives. Two of these differences were that A World at Peace was more important to older persons than to younger ones and Forgiving was of greater importance to laborers than to operatives. In general, though, union members’ value preferences proved to be very homogenous when considering such potentially differentiating factors as age, employment status, work type, and number of years as a union member.

Values profile. Union members’ value ratings clustered into five terminal value factors and four instrumental value factors. *Mature Personal Attainment/Preferred Social Conditions* (63 percent of the variance) was the first terminal value factor; the contributing values were Salvation, Wisdom, A World at Peace, Equality, True Friendship, and National Security. The remaining terminal value factors were Personal Achievement/Ego Satisfaction (14 percent); Freedom and Family Security (10 percent); Personal Enjoyment (8 percent); and Spiritual Unity (6 percent).

The values Polite, Obedient, Self-controlled, Loving, Clean, and Courageous clustered together to form the leading instrumental value factor, labelled *Socially Accommodative Traits* (72 percent). The other instrumental value factors were Interpersonal Social Support (14 percent); Mental Traits and Self-Confidence (8 percent); and Work Ethic Traits (7 percent).

The Personal Value Preferences of the Activist Group

Group rankings. The activist group ranked Equality (1st), A World at Peace (2nd), and Family Security (3rd) higher than other terminal values, and National Security (16th), A Comfortable Life (17th), and Pleasure (18th) at the bottom. Among the instrumental values, Honest (1st), Helpful (2nd), and Courageous (3rd) were top ranked, while Polite (16th), Clean (17th), and Obedient (18th) were thought to be of lesser importance. See Table 1.

Within-group differences. In terms of value preferences, the activist group is clearly more diverse than either the executives or union members. This diversity separated those performing craft-operative-laborers’ work

from administrative-professional workers (a total of 13 significant value differences), those working in profit versus not-for-profit sectors (12 value differences), employed versus the unemployed (11 value differences), older versus younger persons (10 value differences), and men versus women (nine value differences). These differences are shown in Table 2. Such differences in value orientation might possibly affect the ability of this activist group to formulate policy and agree on group goals.

Values profile. Factor analysis revealed four terminal value factors and four instrumental value factors for the activist group. The first terminal value cluster, labelled *Personal Satisfaction/Security* and accounting for 56 percent of the variance, was influenced by A Comfortable Life, Pleasure, and National Security. The other terminal value factors were Preferred Social Conditions (22 percent); Interpersonal Relations/Self-Achievement (14 percent); and Personal Harmony/Spirituality (9 percent). Their most prominent instrumental value factor was *Socially Accommodative Traits* (63 percent), influenced primarily by Obedient, Polite, and Clean. Less prominent instrumental value factors were Mental Traits/Personal Initiative (18 percent); Interpersonal Social Support (13 percent); and Interpersonal Reliability (6 percent).

Comparison of the Personal Value Preference Structures of the Three Groups

As hypothesized, the PVP Structure of the corporate managers differs from that of the other two groups (see Table 3). The terminal value differences appear to be greater between the managers and the activists than between managers and union members, although all three groups ranked Family Security among the top three terminal values. The same kind of value gap occurs between managers and activists where instrumental values are concerned, with Honest being the only instrumental value winning top-three ranking among all groups. Both union and activists gave high billing to Courageous, as might be expected under their straitened economic circumstances, and activists ranked Helpful in their top three instrumental values, also no surprise.

The value clusters comprising the factors show significant differences in terminal value orientations but much similarity when it comes to instrumental values. As might be expected, the corporate managers are oriented toward personal achievement and ego-satisfying beliefs. Union members' beliefs cluster more in the direction of broader, more mature considerations, with obvious concern for various social conditions. Community activists, somewhat like the managers, incline toward an element of personal satisfaction coupled with an interest in national security. These

Table 2. Differences within the Community Activist Group

<i>Terminal Values</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>
A Comfortable Life	*	*	*		*	
An Exciting Life						
A Sense of Accomplishment	*					
A World at Peace						*
A World of Beauty						*
Equality						
Family Security	*	*	*			
Freedom						
Happiness	*	*	*			
Inner Harmony				*		
Mature Love	*	*		*		
National Security	*	*	*	*		
Pleasure	*	*	*			
Salvation	*		*	*	*	
Self-respect						
Social Recognition			*			
True Friendship						*
Wisdom				*		
<i>Instrumental Values</i>						
Ambitious	*	*				
Broadminded				*		
Capable						
Cheerful						
Clean	*	*	*	*		
Courageous						*
Forgiving				*		
Helpful						
Honest						
Imaginative						*
Independent						*
Intellectual						
Logical	*	*	*			
Loving						
Obedient	*	*	*	*	*	
Polite	*	*	*			
Responsible		*				
Self-controlled				*		

A = differences between type of work most often performed

B = differences between type of organization as employer

C = more important to unemployed than employed

D = differences between age groups (21-37, 38-47, 48-77)

E = more important to males than females

F = more important to females than males

Table 3. Personal Value Preference Structures

<i>Executives</i>	<i>Union Members</i>	<i>Activists</i>
<i>The Five Top-Rated Terminal Values</i>		
Self-respect (6.18)	Family Security (6.82)	Equality (6.14)
Family Security (6.04)	Freedom (6.58)	A World at Peace (6.13)
Freedom (6.00)	Happiness (6.37)	Family Security (6.12)
A Sense of Accomplishment (5.66)	Self-respect (6.30)	Self-respect (6.11)
Happiness (5.31)	Mature Love (6.10)	Freedom (6.04)
<i>The Five Top-Rated Instrumental Values</i>		
Honest (6.09)	Responsible (6.51)	Honest (6.26)
Responsible (6.02)	Honest (6.50)	Helpful (6.15)
Capable (5.92)	Courageous (6.13)	Courageous (6.14)
Ambitious (5.71)	Independent (6.11)	Responsible (6.06)
Independent (5.60)	Capable (6.05)	Capable (5.79)
<i>Leading Terminal Values Factor</i>		
Personal Achievement/ Ego Satisfaction	Mature Personal Attainment/ Preferred Social Conditions	Personal Satisfaction/ Security
<i>Leading Instrumental Values Factor</i>		
Socially Accommodative Traits	Socially Accommodative Traits	Socially Accommodative Traits

factorial distinctions denote only a generalized interrelatedness among the values as seen by each group, not a ranking based on importance. Interestingly, all three groups manifest a clustering of instrumental values that promote socially accommodative behavior, although each of these inclinations is most reasonably understood as an *intraorganizational* feature and not necessarily a sign of potential *interorganizational* cooperative behavior.

Intergroup Value Differences and Similarities

For any given value, the t-test results can be used to discover where the greatest differences exist between corporate managers and their critics (see Table 4). Union members disagreed with managers the most concerning An Exciting Life and disagreed least about Family Security. Obedient turned out to be the instrumental value exhibiting the greatest dif-

Table 4. T-Test Results

Value Similarities and Differences (t-value and significance level in parentheses)	
<i>Executives-Union Members</i>	<i>Executives-Activists</i>
<i>Five Most Similar Terminal Values</i>	
Family Security* (-0.06, .948)	A Sense of Accomplishment** (0.03, .978)
Inner Harmony* (-0.18, .855)	Happiness** (0.74, .457)
True Friendship* (-0.89, .372)	Inner Harmony** (0.94, .346)
Freedom** (1.33, .185)	Mature Love*** (-1.03, .302)
A Comfortable Life* (-1.40, .163)	Salvation*** (-1.50, .134)
<i>Five Most Similar Instrumental Values</i>	
Self-controlled* (-0.35, .724)	Broadminded** (0.01, .995)
Courageous* (-0.90, .371)	Imaginative*** (-0.53, .600)
Independent** (0.93, .355)	Honest** (0.67, .504)
Forgiving** (1.13, .261)	Obedient*** (-0.97, .331)
Responsible** (1.62, .106)	Polite** (1.16, .106)
<i>Five Most Different Terminal Values</i>	
An Exciting Life** (6.98, .000)	Equality*** (-11.07, .000)
A Sense of Accomplishment** (6.18, .000)	A Comfortable Life** (10.35, .000)
Self-respect** (6.16, .000)	A World at Peace*** (-9.25, .000)
Pleasure* (-5.17, .000)	A World of Beauty*** (-6.12, .000)
National Security* (-3.78, .000)	True Friendship*** (-5.36, .000)
<i>Five Most Different Instrumental Values</i>	
Obedient* (-9.28, .000)	Helpful*** (-11.01, .000)
Clean* (-7.27, .000)	Ambitious** (7.68, .000)
Imaginative** (6.36, .000)	Logical** (6.48, .000)
Polite* (-5.25, .000)	Loving*** (-5.67, .000)
Capable** (4.91, .000)	Forgiving*** (-5.14, .000)

* More important to union members

** More important to executives

*** More important to activists

ference, with union members rating it of greater importance than the managers. Activists and managers differed the most concerning Equality and Helpful, with the former considering both to be more important than did the latter group. The least difference concerned A Sense of Accomplishment and Broadminded, with executives believing both to be slightly more important.

Knowing the entire range of such value differences might prove useful to any of the parties caught up in a policy struggle or to third parties who might intervene (e.g., as go-betweens, arbitrators, or mediators) in such controversies, particularly where a given policy or planned course of action

(e.g., a plant closing) might impinge on a particular value (such as Family Security).

Key Discriminating Values

Discriminant analysis, by identifying the key values that distinguish one group from another, probably contributes more to an understanding of value and policy clashes than any other set of data produced by this research. Here, all values are considered together (allowing for the stepwise process) whereas the t-test tells only how two groups differ on any given value. Table 5 lists these key values in order of their ability to discriminate between corporate managers and each of the other two stakeholder groups.

Table 5. Discriminant Analysis Results

Discriminating Values (in descending order of discriminating power) (Wilks' Lambdas in parentheses)	
<i>Executives-Union Members</i>	<i>Executives-Activists</i>
<i>Terminal Values</i>	
An Exciting Life** (.8819)	Equality*** (.7866)
Self-respect** (.8022)	A Comfortable Life** (.7228)
A Sense of Accomplishment** (.7528)	Self-respect** (.6936)
Wisdom** (.7302)	True Friendship*** (.6734)
Pleasure* (.7154)	An Exciting Life** (.6542)
A World of Beauty* (.6968)	A World at Peace*** (.6408)
Social Recognition** (.6840)	National Security** (.6326)
Freedom** (.6784)	Freedom*** (.6265)
Inner Harmony* (.6732)	Inner Harmony** (.6192)
A World at Peace* (.6651)	Happiness** (.6148)
Family Security* (.6619)	Pleasure** (.6112)
Salvation* (.6594)	Social Recognition** (.6088)
	Family Security** (.6069)
<i>Instrumental Values</i>	
Obedient* (.8086)	Helpful*** (.7867)
Clean* (.7474)	Ambitious** (.7459)
Logical** (.7239)	Loving*** (.7257)
Imaginative** (.7016)	Intellectual*** (.7109)
Capable** (.6931)	Obedient*** (.6921)
Forgiving** (.6789)	Courageous*** (.6741)
Self-controlled* (.6718)	Logical** (.6638)
Responsible** (.6653)	Honest** (.6558)
	Cheerful*** (.6528)

* More important to union members

** More important to executives

*** More important to activists

Some of the results are striking. The four most discriminating terminal values between managers and union members—An Exciting Life, Self-Respect, A Sense of Accomplishment, and Wisdom—are all thought to be more important by managers than by union members. The key discriminating instrumental values are Obedient, Clean (both more important to union members), Logical, Imaginative, and Capable (all three more important to executives). When corporations and critical stakeholder groups such as these two come together in negotiations or contend with one another over economic and social policies, they are likely to begin with these built-in differences in personal value preferences. They are separated most from one another (on a personal level) in terms of these key values.

Executives and activists gaze across an even larger values gap. Of the top six discriminating values that distinguish these two groups from one another—Equality, A Comfortable Life, Self-Respect, True Friendship, An Exciting Life, and A World at Peace—three are thought to be more important by the activists and three by the executives. Reaching agreement on any specific issue or policy where these personal values are importantly implicated might prove to be quite difficult. This tendency is reflected also in the key discriminating instrumental values, where Helpful (favored most by activists) and Ambitious (highest for executives) head the list.

INTERPRETATIONS AND CONCLUSIONS

This research has revealed Personal Value Preference Structures for a group of corporate managers and two corporate stakeholder groups. The analysis has identified specific values on which managers and stakeholders differ and those values that most clearly distinguish managers from these two groups of critics. This kind of information helps define one part of the organizational context in which adversarial groups formulate policies and take action vis-a-vis each other.

However, it is not at all obvious whether, or if so how and to what extent, PVP Structures are implicated in policy clashes between corporations and their social critics. It is difficult, indeed perilous, to attempt to link any of the value differences shown in Tables 3, 4, and 5 to the kinds of positions taken by any of the parties—corporations, unions, or community activists—who have disagreed sharply with one another over corporate investment and plant location decisions. Family Security, a value perhaps most obviously at risk in such decisions, is ranked either at or near the top of each group's ratings and is the value on which managers and union members exhibit the least difference. Helpful, which means "working for the welfare of others," is ranked the same by managers and union members, possibly suggesting that each sees its actions, though

apparently at odds with the other's, as promoting that value. On the other hand, Helpful is the instrumental value that most distinguishes activists from managers. Normally, one might expect unions and activists to be in agreement on their respective ranking of this value since "working for the welfare of others" is obviously what both groups see themselves doing in opposing plant closing decisions. It is true that Courageous is ranked third by both union and activists and only eighth by managers, but its connection to policy clashes between corporations and these two groups is not clear; besides, it is another value on which managers and union show an insignificant difference.

One possible conclusion, then, is that the policy differences between corporations and these two groups are not defined by, nor are they a function of, the Personal Value Preference Structures to be found in the respective groups. Such a conclusion would strike hard at certain aspects of management theory and environmental theory, including those mentioned at the outset of this paper which have assigned an important role to values.

Other possible explanations of what seems to be the irrelevance of personal values to policy clashes are: (1) that the RVS used here does not include a number of critical values considered important by all the groups, and if they were included significant differences would be registered; (2) that policy struggles reflect differences in goals more than differences in values, and therefore goals, as well as values, should be studied; and (3) that groups are separated from one another more by their respective *organizational* value systems than by their Personal Value Preference Structures.

It is this third possibility that seems most plausible to us, although there is something to be said for the other two explanations as well. Recent theory—though there is little empirical research to confirm or deny it—supports the notion that organizational values are largely determinative of organizational policies and actions (Deal & Kennedy, 1982; Peters & Waterman, 1982; McCoy, 1985). It should be added, though, that these theories also posit an interplay between the personal values and vision of top managers and their organization's dominant values, thus bringing both kinds of values to bear upon policy- and action-outcomes.

It would be premature to dismiss altogether the possibility that PVP Structures are influential in helping to determine the policies (and therefore the policy differences) that arise between corporations and their social critics. The influence and transactional dynamics that may occur would tend to be more direct and obvious in two-party direct contacts or negotiations than when, for example, corporations and critical stakeholder groups battle indirectly through media campaigns or lobbying. Presumably, that is a principal reason why Freeman (1984) urges corporations to con-

duct detailed stakeholder mapping and analysis, on grounds that knowing one's adversary carries bargaining and maneuvering advantages. It also suggests the dangers in merely accepting stereotyped images of one's adversaries without knowing just which values are embedded most deeply in the personalities and consciousness of the collective membership and/or the chief negotiators.

PVP Structures are most likely a "silent component" of intergroup relations, subtly conditioning the attitudes of the participants as well as their general outlook on problems and issues that separate any two groups. Somewhere within their personal consciousness, corporate managers confront other people and nettlesome issues from a reference point of Personal Achievement and Ego Satisfaction, where Self-Respect, Family Security, and Freedom, and being Honest, Responsible, and Capable are highly ranked values. This PVP Structure orients them personally to the world they perceive. It would be difficult indeed, perhaps even foolish, to ignore the possible influence this value orientation exerts on the general outlook and actions of corporate managers. The same could be said of the respective PVP Structures of unions and activist organizations.

If, therefore, it is possible to say that personal values are involved but are not the central—and possibly not even the major determinative—component that guides the decisions, actions, and policies of organizations, a question arises concerning the role of moral agency within the corporation. Where personal values constitute only a portion—and perhaps not even the central portion—of the total value structure of any given organization, but where at the same time the values embedded in an organization's procedures and policies tend to drive it toward certain goals and along certain pathways, the burden of moral responsibility would appear to rest largely on the organization's values and traditions rather than solely upon the individuals who actually make the decisions and carry them out. To the extent that the collective PVP Structure of an organization exerts an influence on actions and policies, one could say that moral responsibility also resides to that extent in the individual members of the organization.

Under these circumstances, moral responsibility is a function of two different dimensions of an organization's value structure, one being the embedded organizational value system and the other consisting of a collective PVP Structure that reflects the personal value preferences of the organization's individual members. An individual member assumes some measure of moral responsibility by agreeing in general to abide by an organization's rules and standard operating procedures, for the values that underlie those rules and procedures are generally thought to be instrumental in directing that person's work. In that sense, an individual member agrees (perhaps only tacitly) to participate in the morality or immorality, whichever it may be, implicit in the organization's value system. But few

persons, even those who work in highly structured organizational environments, are so encapsulated in this organizational value network that they cannot express their own views or find themselves unable to act without reference to their own personal value preferences. Therefore, moral responsibility for actions taken under the aegis of the organization would appear to be shared between the organization and the individual member. It would be a function of two value components—the organization's values and the individual person's value preferences.

Our study has described the latter type of value structure and has suggested its possible role in exerting an influence on both individual and organizational actions. Research directed toward the description of organizational value systems and the various ways in which they too exert influence on policies, decisions, and actions would help round out the role played by values in organizational life.

APPENDIX

Value Terms and Descriptors from Rokeach Value Survey

Terminal Values:

A COMFORTABLE LIFE (a prosperous life)
AN EXCITING LIFE (a stimulating, active life)
A SENSE OF ACCOMPLISHMENT (lasting contribution)
A WORLD AT PEACE (free of war and conflict)
A WORLD OF BEAUTY (beauty of nature and the arts)
EQUALITY (equal opportunity for all)
FAMILY SECURITY (taking care of loved ones)
FREEDOM (independence, free choice)
HAPPINESS (contentedness)
INNER HARMONY (freedom from inner conflict)
MATURE LOVE (sexual and spiritual intimacy)
NATIONAL SECURITY (protection from attack)
PLEASURE (an enjoyable, leisurely life)
SALVATION (saved, eternal life)
SELF-RESPECT (self esteem)
SOCIAL RECOGNITION (respect, admiration)
TRUE FRIENDSHIP (close companionship)
WISDOM (a mature understanding of life)

Instrumental Values:

AMBITIOUS (hard-working, aspiring)
BROADMINDED (open-minded)
CAPABLE (competent, effective)
CHEERFUL (light-hearted, joyful)
CLEAN (neat, tidy)
COURAGEOUS (standing up for your beliefs)

FORGIVING (willing to pardon others)
HELPFUL (working for the welfare of others)
HONEST (sincere, truthful)
IMAGINATIVE (daring, creative)
INDEPENDENT (self-reliant, self-sufficient)
INTELLECTUAL (intelligent, reflective)
LOGICAL (consistent, rational)
LOVING (affectionate, tender)
OBEDIENT (dutiful, respectful)
POLITE (courteous, well-mannered)
RESPONSIBLE (dependable, reliable)
SELF-CONTROLLED (restrained, self-disciplined)

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ISSUES IN WORK VALUES MEASUREMENT

Elizabeth C. Ravlin and Bruce M. Meglino

Human values have long been assumed to be important constructs in social science. Virtually any textbook on organizational behavior contains at least one theory featuring individual values, beliefs, and attitudes in a central role (e.g., French, Kast, & Rosenzweig, 1985; Randolph, 1985). This global assumption, unfortunately, hides a very real paucity of information on the processes whereby values exert their influence on human cognition, behavior, and attitudes. Lack of a unified definition of values, unique problems in the measurement of values, and the subtlety and complexity of their effects have made research in this area especially challenging.

This article is concerned primarily with the second issue mentioned above—the special problems in measurement which values present. First is a discussion of what values are, and how we believe they influence work outcomes. The second section discusses measurement problems

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arising from the conceptual nature of values. Finally, the article briefly reviews four research studies that address various measurement issues.

VALUES AT WORK: DEFINITIONS AND THEORY

The values of individuals in organizations have received considerable attention recently in both research and popular literature. There are a number of reasons for this increased attention. The culture of an organization, defined as a system of shared values (Tichy, 1982; Uttal, 1983), has been linked to various aspects of an organization's performance (Barney, 1986; Kilmann, 1984). Some also believe that the values of individuals at the upper levels of an organization affect strategic choices (Hambrick & Mason, 1984). Finally, there is evidence to suggest that a clash of cultures between units from different organizations will inhibit their successful integration when their firms are engaged in merger activities (Frost, Moore, Louis, Lindberg, & Martin, 1985; Ivancevich, Schweiger, & Power, 1987).

At a more global level, there is concern that the values of the American worker, particularly those values related to the work ethic, may somehow be changing or even deteriorating (Cherrington, 1980; Fuller & Bluestone, 1980; Spence, 1985). Some researchers and practitioners have also linked the economic success of other countries, Japan in particular, to a superior, or at least more appropriate, set of values held by their employees and managers (Howard, Shudo, & Umeshima, 1983; Ouchi, 1981). The results of these cross-cultural observations and research findings have even raised substantial questions about the hedonistic assumption that forms the basis of popular models of work motivation. Specifically, Staw (1984) has noted that although "Western models of motivation emphasize individual gain and self-interest, the Japanese system relies more heavily on motivation for collective welfare and appears to be more altruistically based" (p. 651). Since altruistic behavior can be understood from the perspective of individual values (Locke, 1975), future theories of work motivation may well incorporate such values as important motivational constructs (e.g., see Locke & Henne, 1986).

The recent attention focused on the role of individual values is based upon the implicit assumption that these values affect the behavior of individuals in work situations. Although this conclusion appears obvious—indeed there is no shortage of "armchair" theorists who insist it is so—there are surprisingly few studies that show that work values significantly affect the behavior of individuals at work (Meglino, Czajka, & Ullman, 1986). Although there are a number of reasons that might explain this lack of substantial evidence, perhaps the most important possible cause relates

to the actual content of the measures used in studies of work values. An examination of these measures indicates that often personality dimensions, attitudes, opinions, and preferences are measured rather than values. Perhaps this is not surprising since the social science literature often confuses values with other constructs (see Bem, 1970; Kluckhohn, 1951; Meddin, 1975; Rokeach, 1973). It seems appropriate, therefore, to begin with a definition of values and a discussion of their unique characteristics.

Although values have been explored from a number of different perspectives, two general approaches seem to capture much of the work that has been done. The first views individuals' preferences for various aspects of a job (e.g., security, prestige, independence) as manifestations of their work values, and is often used in the employment or occupational counseling area (e.g., Rosenberg, 1957; Super, 1970). The second approach, more closely associated with the traditional social psychological view of values, is more concerned with beliefs about various forms of behavior (e.g., Mirels & Garrett, 1971; Wollack, Goodale, Wijting, & Smith, 1971). Since the primary concern here is to understand the behavior of individuals within the context of a work organization, we take a social view of work values, which is closer in nature to the second approach. We define values as beliefs about the way an individual ought to behave. The key term in this definition is the word "ought," since it distinguishes values from other constructs—that is, rather than dealing with forms of behavior an individual wants to display, prefers to exhibit, or finds pleasurable, values are concerned with types of behavior that a person feels he or she "ought" to exhibit or feels it is proper to exhibit. It is important to note that this definition applies to values as they exist in society as a whole as well as those which define the culture of a particular organization.

Because of their "oughtness" characteristic, values specify forms of behavior that are "socially desirable" (Fallding, 1965; Kluckhohn, 1951; Rokeach, 1973; Schein, 1985; Williams, 1968). In essence, then, the behaviors that values specify are those which most individuals would strongly endorse. This, however, inevitably leads to a series of dilemmas because we frequently find ourselves in situations where our values conflict with each other. Behaviors consistent with one value, achievement for example, often preclude, to some extent, behaviors that relate to other values (e.g., concern for others, honesty). Thus, "the study of values leads to the study of conflict directly" (Fallding, 1965, p. 225). In such cases, our resolution of the dilemma depends on the relative importance we attach to each of the two values. If this example is expanded to include a number of values, one must ultimately conclude that an individual's values are assembled in a hierarchy of importance (Rokeach, 1973; Locke, 1976, 1982), and that the myriad situations that call for a choice from among a number of behaviors tend to be resolved in favor of the more dominant or important

value. The implications of this and an alternative viewpoint for values measurement are discussed further below.

The socially desirable nature of values is a unique characteristic of the concept. Of course, many traits or styles of behavior, such as high need for achievement or a participative management style, might display some elements of this type of response bias; however, in most cases, this will cause responses to be biased in a specific direction (i.e., toward participative management as opposed to an authoritarian style). In the case of values, *all* values are predefined as socially desirable. In most situations, this means that rather than causing responses to be inflated in a particular direction, or on one particular subscale or item, *all* responses to *all* items are inflated, with the result that between-value variance is minimized or potentially eliminated. Further implications of the social desirability of values for values measurement are examined in the next section.

Another characteristic that separates values from other constructs is their centrality. A person's values are closer to his or her personality than other constructs such as attitudes and opinions, which are more specific and serve to express values (Meddin, 1975; Rokeach, 1973). Because it is more central, a person's system of values tends to remain relatively stable over time. Values are both central and relatively stable because they are based upon a person's experience (Jones & Gerard, 1967; Locke, 1982) as well as what he or she has been taught, particularly during periods of socialization. These socialization periods usually take place early in life, as well as during one's early exposure to a new organization or group (Cherrington, 1980; Schein, 1968). Because of these characteristics, values are thought to have a pervasive effect upon individuals, that is, an effect which not only includes the choice of behavior or modes of conduct (Kluckhohn, 1951; Rokeach, 1973; Williams, 1968), but also extends to a person's organization and interpretation of external stimuli (i.e., the perceptual process).

Some theorists have suggested that the level of internalization of a value has important implications for its influence on behavior. While a group or organization may develop a set of espoused values representative of goals for behavior, these espoused values may not be based on prior cultural experience linking them to important outcomes. In such cases, espoused values may superficially dictate what individuals say about what should be done, without actually directing behavior or improving effectiveness (Argyris & Schon, 1974; Schein, 1985). A deeper level of internalization of the value—the belief that the value forms a central part of the identity of the organization, group, or individual—is required for its effects to be substantial.

Because they are central to an individual's personality and relatively stable, internalized values are less likely to reflect the more mutable char-

acteristics of an individual's immediate environment. Since much of an individual's behavior is, in fact, influenced by fluid environmental circumstances (e.g., the incentives, constraints, peer pressures, etc., which are present at a particular time), values may well have a relatively weak relationship to an individual's behavior on any specific occasion. As with other relatively central constructs, however, values are expected to influence broad modes of behavior over time (see Epstein, 1979; 1980). For this reason, when compared to approaches to managing human resources that emphasize prediction of specific immediate behavior, understanding values is an approach to management which, consistent with the Japanese system, stresses a longer time perspective, greater awareness of the individual, and long-term commitment between employer and employee.

In addition to their hypothesized effect on behavioral choices and perceptions, values also influence social exchange. To the extent that they are shared, values allow individuals to predict the behavior of others. As Kluckhohn (1951) has observed, this prediction is crucial to all social interaction. Since coordinated behavior in an organization is an important form of social exchange, shared values should make the prediction of behavior easier. Thus, to the extent that an organization or group develops shared values or a "culture," interaction and output should occur more efficiently, and employees should be more satisfied with the interactions themselves.

ISSUES IN VALUES MEASUREMENT

Given our conceptualization of values, it is important to consider how such characteristics as the socially desirable nature of values, their possible hierarchical organization, and their nature as central constructs influence the process of measuring values. Each of these three issues is discussed below.

Our theory of what values are points clearly to social desirability response bias as a major problem in values measurement. If one were to ask individuals whether they should be achievement oriented (or honest, or concerned for others, etc.), most would strongly agree. These responses would, therefore, be spuriously inflated, show little difference between individuals, and hamper the ability to predict choices from among value-related behaviors. It would also be difficult to distinguish a person's evaluation of a *socially desirable construct* from what is basically a measurement error stemming from the individual's desire to present himself or herself in a favorable light (*socially desirable response*). One approach to solving this problem is to employ forced choice or rank order scales that require individuals to choose between equally desirable alternatives (An-

astasi, 1982). This within-subject or "ipsative" approach has been used in the past to measure values (Allport, Vernon, & Lindzey, 1960; Rokeach, 1973).

Forced choice and rank ordering as solutions to the social desirability problem, however, generate their own set of concerns. First, fully ipsative measures, like most forced choice and ranking instruments, do not allow the respondent to indicate that two or more values are equivalent in importance. Even within the context of a hierarchical approach to conceptualizing values, it seems reasonable to suppose that there will exist cases in which two values might be close to equal in actual importance, rather than simply equal in social desirability. However, such questionnaire formats will not allow this type of response. Such formats could create another problem, as well, since they may actually prevent the measurement of what is basically the essence of values themselves (i.e., social desirability). Finally, this approach must also leave some lingering concern for the existence of social desirability response bias. For example, if a particular subgroup, such as middle level managers, believes that it is most highly socially desirable to appear to be achievement oriented, this should bias the placement of achievement in a rank ordering, or choices for achievement in a forced choice measure. Thus these responses will not necessarily represent the individual's values; instead, they may show social desirability response bias in a specific group context. While response bias has been greatly reduced, it has not been entirely eliminated.

A second major issue that must be considered in measuring values is their cognitive organization. Earlier, the typical hierarchical approach to understanding values was described. This view considers values as cognitively arrayed in order of importance, with the most important value exerting the most influence on cognitive and behavioral outcomes. An alternative view, however, might be that several or even all values are essentially of equal importance, and that their influence depends upon which value is more applicable or salient in a particular situation. These two alternative views have varying implications for values measurement. If values are indeed ordered in a hierarchy, a hierarchical, or ipsative, form of measurement is conceptually most appropriate. On the other hand, if values are organized in groups, with all values in a particular group having near equal levels of importance, we would not want a value ordering *per se*. Instead, we might need a format that simply identifies these groups of values. In this case, a procedure for measuring the applicability of a value to a given situation would be more important for predictive capability. While past approaches have used both normal and ipsative formats, an assumed hierarchical organization underlies virtually all analysis and interpretation. The legitimacy of this assumption can be tested, and such a test is discussed later.

Two important reasons have been mentioned for considering the use of ipsative measures in values research. First, forced choice and rank measures, which for the most part are totally ipsative, are a primary way to control for social desirability response bias. This is a practical reason to use such formats. Second, if values are hierarchical in nature, one should consider the use of ipsative measures for conceptual reasons as well. If an ordering of values, rather than a scaling, best represents the cognitive organization of values and their impact on cognitive and behavioral outcomes, then an ipsative approach should be the method of choice. On the other hand, if values are not hierarchical, a normal, between-subjects measure may be more appropriate. Other possibilities for yielding between-subjects scores while controlling for social desirability response bias include forced choice instruments in which one of each choice pair is not scored, partially ipsative instruments in which some choices are not scored, and unobtrusive measures which are not readily interpretable by the respondent, such as projective techniques.

Ipsative measurement has not recently been considered with much favor in the social science literature (e.g., Hicks, 1970). The primary reason for this negative opinion of the approach is that between-subjects conclusions concerning the results are somewhat difficult to make. To directly correlate two subscales of an ipsative measure would be inappropriate because of the nature of their interdependence (in the case of a measure with only two subscales, the correlation would always be -1). Correlations with other, normal measures are also affected. Instead, one must first compute within-subject correlations (such as the relationship between a respondent's ordering of several values and the relative weights that he or she places on each value in making a series of decisions). These within-subject correlations may be cumulated to determine between-subject results using a Fisher r to z transformation, which corrects for the skewed distributions of the correlation coefficients. Average z scores can then be used to represent the degree of relationship between variables between subjects. An alternative approach, sometimes used with very large samples (e.g., Feather, 1975; Rokeach, 1973), is to assign each rank to a percentile of the normal distribution.

Given these acceptable ways of dealing with ipsative data to draw between-subject conclusions, it should be recognized that ipsative data are an appropriate alternative in certain situations. In the case of values research, given concerns about social desirability and the hierarchical nature of values, ipsative approaches should certainly be given some consideration. The user of such approaches must, of course, keep in mind the restrictive procedures that must be followed, and the reduction in power that may attend such statistical procedures.

A final point regarding measurement issues which derives from our

conceptualization of values concerns the relationship between value and criterion measures. The view of values as exerting general, longitudinal influence as opposed to specific, short-term influence on outcomes has several implications for measurement and testing. First, in validating measures of values, one should not be surprised to find weak or attenuated relationships between measures and specific, individual criteria. Second, an investigator may want to look for patterns of responses as dependent criteria. If, for example, one examines a series of choices an individual makes, rather than one choice, the impact of values on the outcome is more likely to be observed. Third, this approach might be incorporated into a measure of values as well. It may be that predominant influences are best detected when a questionnaire requires a person to make repeated choices. Here, a stochastic determination can be made about preferences, as opposed to considering one response alone.

The four research studies that follow all deal with aspects of the measurement issues described above. First, we review a study that identifies values that individuals believe are important in the work place. The second study examines the assumption that values are hierarchical in nature. Third, we compare several measurement techniques for their ability to detect relationships with theoretical criteria. The final study once again compares measurement methods but uses different criteria to assess the effectiveness of the measures.

IDENTIFICATION OF VALUES IN THE WORK PLACE

The first phase of this project necessarily was concerned with identifying the values American employees think are important in the work context. Rather than project our beliefs about what behaviors are or should be important by asking specific value questions or formulating *a priori* value categories, we felt it was more appropriate to have employees themselves provide the information concerning which work values are likely to influence their perception and behavior. Since individuals often focus on the work ethic when they think of work values, we wanted to know if employees would readily identify other values which were important to them in this context. Given the great amount of diversity of the American work force, an additional issue, aside from the actual set of values identified, was whether there was some level of agreement between various subgroups of the working population as to which of these values are important at work. The goal, then, was to develop descriptions of a limited set of value categories that were of some level of importance to most or all groups of workers.

Once a set of values had been identified, one central issue was the re-

lationship of these values to the behaviors of employees. People do not execute value categories; they execute behaviors. Thus it was important to find out what behaviors individuals believed were value-expressive. Determining such behaviors aided in the development of a less obtrusive or transparent measure of work values as is described later in this article, and eventually, may also help to predict action patterns that may follow from specific values.

The procedure used to elicit work values from members of the American workforce (described in more detail in Cornelius, Ullman, Meglino, Czajka, & McNeely, 1985; Ravlin & Meglino, in press) was developed around two major concerns. First, we did not want to provide any implicit or explicit suggestions as to what values are appropriate in a work context. In this way, we could avoid imposing our values and beliefs on survey participants. Second, we wanted to avoid social desirability response bias. Therefore, we asked people to describe someone else, rather than themselves. In following this procedure, individuals would have no motive to respond in a biased manner, either because the questionnaire guided them toward specific responses, or because they wished to present themselves in a better light. This approach assumes that asking employees to write about the values of a co-worker acts as a projective test, telling us about the values of the writer, and not the subject, in an unobtrusive manner.

The questionnaire was designed as a variant of Flanagan's (1954) critical incident approach. Respondents were first asked to think of a person they knew well at work, and to give a value about life they felt that person held. They were then asked for a "critical incident," an episode in which the co-worker demonstrated that value in his or her behavior at work. These questions were presented in a free response format so that individuals could write anything they chose. On a second page, demographic information was solicited (job title, tenure, age, sex, state in which the respondent grew up, and the size of the town).

This questionnaire was distributed in over 40 organizations across the United States. All major occupational groups were represented, and the sample was diverse in terms of geographic origin (respondents were originally from 48 different states). While this was not a random sample, efforts were made to obtain representatives of as many different industries as possible, and to ensure that major geographic differences would be represented. Based on 1,243 usable responses, the mean age of participants was 34.8 years, and their mean organizational tenure was seven years. Approximately half the sample was male and half female. Forty-four percent of respondents were managers or supervisors. Manufacturing, service, private nonprofit, and government industries were all represented. While the sample was weighted toward southern respondents, individuals from all geographic regions tended to respond with the same limited set of val-

ues. Therefore, this regional weighting was not as severe a limitation as it might otherwise have been. Questionnaires were, in most cases, individually administered by the organization's personnel.

Categorization of the obtained behavioral incidents was performed in three phases using content analytic procedures. First, three independent judges free-sorted the responses from 149 individuals. Group consensus was then used to derive initial categories and develop the guidelines for inclusion of a response in a category. In the second phase, an independent set of four judges classified the same responses using the classification rules. Thirdly, using three different judges, a cross-validation sample was used to determine if the classification rules could be applied to a new set of responses.

Value Categories

The final result of the categorization process was a list of thirteen values that employees had identified as important to the work context. These were named "achievement," "concern for others," "honesty/integrity," "working hard," "positive outlook," "helping others," "fairness," "family," "in control," "leisure," "religion," "wellness," and "me first." The first seven categories are described below in depth because they describe the bulk of the responses received. The remaining categories each contained less than 5 percent of the total response.

Content analysis of the behavioral incidents indicated that achievement and working hard seemed to represent two different aspects of the work ethic. While achievement included the concept of reaching goals and improving oneself, working hard as a value seemed to be limited to behaviors such as keeping busy at work without an underlying goal. Responses that reflected achievement included "always do the best you can on every task," and "improve yourself; seek additional tasks and responsibilities." Typical working hard responses, on the other hand, were "stay busy at all times" and "work scheduled hours."

Three categories reflected a basic concern for the treatment of other individuals. Concern for others as a value seemed to indicate the importance of understanding other people, and being sympathetic to their point of view. "Treating people with respect" and "showing concern for the problems of others" were ways that concern appeared in behavior. Helping others seemed to imply a more active, less understanding orientation. "Goes out of his way to help in any situation" is an example of a response categorized as helping others. A third category, fairness, reflected an orientation to equity considerations, as in "be impartial in dealing with others" and "carry your share of the workload."

Two additional values in the primary seven did not fit into either work

ethic or people orientation categories. Honesty/integrity was represented by "refuse to do what you know is wrong," and "speak frankly even when it is difficult to do so." Here the incidents clearly reflected at least two facets to the category. One refers to holding true to one's beliefs, standing up for what one believes in, or refusing to act in violation of one's convictions. The second involves being honest concerning one's own behavior, mistakes that are made, or with subordinates in relation to their job or job performance.

Lastly, positive outlook also was represented in many responses. These behavioral incidents reflected the view that one should be optimistic in one's view of life in general and events at work in particular. "Cheer up those around you" and "be optimistic" are representative responses classified as positive outlook. The finding of this value category was somewhat unexpected, in that it does not have much precedent in the literature as a preferred mode of behavior.

Demographic Differences in Values

Interesting comparisons can be made between the number of responses received in each category for various demographic groups using a *z* test of differences between proportions (see Table 1). Some of these comparisons are described below. The reader should note that in interpreting these results, it must be assumed that the questionnaire administered in this study did indeed represent a projective test, that is, that individuals

*Table 1. Z Tests of Demographic Differences in Values Described:
Percentage of Incidents by Category*

	<i>N</i>	<i>Ach</i>	<i>Hon</i>	<i>Con</i>	<i>WH</i>	<i>Help</i>	<i>PO</i>	<i>Fair</i>
Total sample	1243	17.9	10.4	14.6	8.7	8.0	9.7	4.9
Females	593	16.5	9.1*	15.9	9.1	11.0*	11.5*	5.4
Males	641	19.0	11.5*	13.6	8.3	5.1*	8.1*	4.5
Supervisors	537	20.1*	11.5	14.3	7.8	6.5*	9.3	4.1
Non-supervisors	695	16.4*	9.4	15.1	9.5	9.1*	9.8	5.6
Under 30	432	19.4	8.8*	13.7	9.7	5.8*	12.0	2.8*
Over 40	312	16.3	13.5*	15.1	7.4	9.9*	9.6	6.1*
South Carolina	395	14.7*	9.1	15.7	8.1	10.6*	11.1	7.1*
Other states	826	19.5*	11.0	14.3	8.8	6.7*	9.1	3.8*

*difference in proportion significant at $p < .05$.

described in a co-worker a value that was of primary importance to themselves.

Sex Differences. Profiles of males and females differed in the number of helping, positive outlook, and honesty/integrity responses written. Females were more likely than males to give both helping and positive outlook responses. Certainly, this difference in helping incidents is in keeping with our understanding of how women are socialized. Honesty/integrity incidents were more likely to be mentioned by men.

Supervisors/Nonsupervisors. Differences also appeared between the profiles of supervisors and nonsupervisors. Supervisors were more likely to express achievement orientation in their responses than nonsupervisors, and were less likely to write about helping others. Once again, these findings are at least in part intuitively appealing, in that we would expect those who find their way into supervisory positions to be more achievement oriented.

Age Differences. Profiles for those under 30 years of age were quite different from those over 40. Differences showed up in honesty/integrity, helping others, and fairness. Overall, older people were more likely to cite incidents that exhibited a concern for the treatment of other people (helping, fairness), and to describe the importance of honesty and integrity. These differences may be representative of the maturation process in which individuals become both less self oriented, and also come to believe in the importance of personal integrity. An alternative explanation, of course, is that the values noted here are diminishing in importance for the younger population.

Regional Differences. Because of the distribution of the sample, it was possible to make an interesting comparison between the values cited by respondents originating from the state of South Carolina ($N=395$) and respondents from other areas of the United States ($N=826$). Differences suggested less concern for achievement in South Carolina, but more interest in helping and fairness. Evidence indicates that some of these differences generalize to the Southeast as a whole (Cornelius, Ullman, Meglino, Czajka, & McNeely, 1985).

Given the findings above, it is possible to make several statements concerning further research on work values. First, it is important to note that the value related behavioral incidents which led to the categories were generated by actual employees. Clearly, employees find values other than those related to the work ethic to be important in the work context. Some of these values have not been closely examined before. The philosophy

of simply accepting what the literature presents as workplace values may have led researchers to focus on the work ethic to the exclusion of other values which are apparently influencing individuals in the work context.

A second conclusion to be drawn is that individuals were readily able to discuss specific value oriented behaviors. Apparently, some behaviors have a value connotation, which may help in predicting patterns of behavior. This is an important point in understanding the value-behavior link. When people make choices, they do not choose between value categories, but between actual behaviors. This issue will be considered at greater length later in the chapter.

A third point is that given patterns of demographic differences which are consistent with our beliefs concerning socialization patterns, this projective approach to eliciting values from individuals appears to have potential for further use in the context of values research. As noted earlier, the problem of social desirability response bias is a very serious one in values measurement. The procedure used here, asking people to describe someone else, has the advantage of reducing or eliminating such bias.

Given the identification of a limited set of values that employees consider to be important in the workplace, the problem of measurement must be addressed further. As noted earlier, researchers have often used ipsative measures, which rank values in a hierarchy. As these measures have shown promising results (e.g., Rokeach, 1973), it was believed to be important to examine further the hierarchical assumption underlying this most common conceptualization of values. The next section reviews a study that tested the hierarchical assumption by way of examining the transitivity of work value choices.

TESTING TRANSITIVITY AND THE HIERARCHICAL NATURE OF VALUES

One implication of the almost universal use of a hierarchical approach to the understanding of work values is that individuals must be able to rank work values in order of logical preference for this conceptualization to be legitimate. The transitivity postulate, that consistency must be generated between outcome choices, is a necessary condition for logical preference ordering. The transitivity postulate states that if Value 1 is chosen as more important than Value 2, and Value 2 is chosen as more important than Value 3, then Value 1 must also be chosen as more important than Value 3. Only if such a pattern of preferences exists can we claim that an individual has a logical hierarchy of value preferences. While human nature dictates against such a strictly consistent ordering, criteria have been identified for different levels of stochastic transitivity (e.g., Navarick

& Fantino, 1974). This approach to understanding consistency in human response is based on the idea that over multiple trials or choices, individuals may exhibit transitivity at some level less than total transitivity. Weak stochastic transitivity of choices exists when the following conditions are met:

1. The probability that Value 1 is chosen over Value 2 is greater than or equal to .5,
2. The probability that Value 2 is chosen over Value 3 is greater than or equal to .5, and
3. The probability that Value 1 is chosen over Value 3 is greater than or equal to .5.

Although such a pattern of results indicates a level of transitivity, it also suggests that individuals are close to indifferent as to the choices offered, are forced to make a choice between alternatives, and consequently exhibit some reversal in choices over trials. Such an approach to understanding choice behavior in the context of work values is more realistic than an approach that focuses solely on one set of choices as if it were immutable, or implies that choices never recur.

In general, past research on the transitivity of preferences has indicated that people are transitive at some level in their approach to preference ordering (e.g., Griswold & Luce, 1962; Liddell & Solomon, 1977). Additionally, it has been shown that individuals can be influenced to violate weak stochastic transitivity (Tversky, 1969), but no evidence has yet suggested that they do so without such an influence. Transitivity of preferences in the context of work values, however, is still in question. Some studies, such as Liddell & Solomon's (1977) investigation of job outcomes, have attempted to maximize the difference in the importance or valence placed on the choice alternatives. Other studies also have used choice alternatives with clear instrumental implications for the decision maker. Work values, because of their social desirability noted earlier, all should assume a high valence for subjects. In this context, the choice alternatives are beliefs concerning what the individual should do. These beliefs may be central to the individual's concept of what he/she should do, but the individual is asked to choose between these beliefs. Such a choice may be difficult if both alternatives are desirable to the subject, and neither has a directly assessable instrumentality.

An additional consideration in attempting to determine how individuals respond to value oriented choices is that, as mentioned above, rarely if ever would an individual directly pick between the value categories themselves. For example, people do not generally choose between striving for achievement or being concerned for others. They choose between varying

behaviors that reflect these value categories, such as "taking on additional tasks to get ahead," and "trying to help reduce a friend's burden." Demonstration of transitivity across varying behaviors consistent with value categories actually would be more representative of the way in which actual values oriented choices occur.

The research on values transitivity described below (see also Ravlin & Meglino, 1987) had two purposes. The first was to determine whether individuals could rank work values categories in preferential order in a transitive manner, as is consistent with a hierarchical conceptualization of the function of values. The second purpose was to determine whether individuals could be transitive among choices in which different value categories are reflected by specific behaviors. Our belief was that subjects would be transitive for the most part in both cases, but that some intransitivities would occur because of the high social desirability of all values and value oriented behaviors.

The study was conducted in two phases. In Phase 1, 97 graduate and undergraduate business students pair-compared eight different value categories four different times. The values used here were achievement, working hard, concern for others, helping others, honesty, fairness, having a positive outlook, and being in control of one's self.

In Phase 2, 21 bankers and 23 undergraduate business students filled out a forced choice questionnaire which examined four values. In this phase, achievement and working hard were combined to form a generalized achievement category, and concern for others and helping others were combined to form a single concern category. Honesty and fairness were the other work values included here. Single phrases, each representing behaviors related to one of the four value categories, formed the basis of the forced choice questionnaire. Some phrases were derived from the critical incidents described above, while others were constructed based on these incidents. While each value was compared with every other value four times, each comparison was made with a different behavioral statement representing each value. These behavioral statements were matched for social desirability and the extent to which they represented the category with which they were associated. Items were also rated for representativeness of all categories. Only statements that were categorized under the correct value at least 78 percent of the time (with no more than 12 percent in any one of the three remaining categories) were used on the questionnaire (most behaviors were considerably higher in representativeness).

Results of both phases of this study are shown in Table 2. In Phase 1, given an eight pair comparison procedure, only a very small percentage (0.015 percent) of runs should be totally transitive by chance (Kendall, 1970). In actuality, 22.7 percent of the runs were-totally transitive. As

Table 2. Transitivity by Run: Phases 1 and 2

	Mean Intransitivities per Subject	Proportion Totally Transitive
<i>Phase 1</i>		
Run 1	5.594 (N=96)	.156** (N=96)
Run 2	5.103 (N=97)	.165** (N=97)
Run 3	4.433 (N=97)	.278** (N=97)
Run 4	4.371 (N=97)	.309** (N=97)
<i>Phase 2</i>		
Run 1	.7727 (N=44)	.545* (N=44)
Run 2	.7209 (N=43)	.558* (N=43)
Run 3	.5116 (N=43)	.651* (N=43)
Run 4	.7045 (N=44)	.545* (N=43)

* $p < .05$ ** $p < .01$

was predicted, a fairly large number of intransitivities did occur. Out of a total possible 20 intransitivities per run, subjects appeared to be intransitive on over 20 percent of these triads. To determine whether any of these intransitivities met the criteria for weak stochastic transitivity, a further examination was made of the last run of each of the MBA students in the sample. Out of 58 subjects, 10 responded at a level of intransitivity that indicated response was no different from chance on this last run. Of the remaining subjects, 15 were totally transitive, while 33 were significantly transitive. This last group of 33 had made a total of 123 intransitive choices. Out of these 123 intransitive triads, only eight triads did not meet the criteria for at least weak stochastic transitivity. This finding indicated that for the 48 subjects who had some degree of consistency (each with a possible 20 intransitivities), almost all triads reached some level of transitivity.

Results for Phase 2 were similar. The proportion of totally transitive responses was significantly different from the proportion predicted by chance ($z = 5.44$, $p < .05$) using a proportions test. Clearly, even the use of varied behaviors to represent value categories did not prevent subjects from being consistent in their choice orderings.

In this phase, there were 88 possible intransitivities (two intransitivities possible per subject per run). Out of these, in the fourth run, 31 were shown to be intransitive using total transitivity criteria. Examining data from all four runs indicated that only four intransitivities did not meet the criteria for at least weak stochastic transitivity (4.5 percent).

Despite reasons to believe otherwise, these results provide fundamental support for the idea that values can function as a cognitive hierarchy, both in the form of value categories, and in the form of value related behaviors. Subjects in this study tended to be less transitive than in studies utilizing other types of outcomes; however, this is probably caused in part by the nature of the boring and repetitive task they were given to do, and more importantly, by the uniformly high levels of valence associated with the value outcomes. Certainly, this lack of variance in the importance of different values to an individual may be one more factor that attenuates the relationship between values and behavior. It seems likely that although value hierarchies seem to exist, they may be somewhat flexible when the values involved are of close to equal importance. This possibility adds to the difficulty of predicting behavior from values.

The research described above supports a case for ipsative measurement as a conceptually sound approach to operationalization of values. This approach, as was noted earlier, has the primary advantages of providing a control for social desirability response bias, and conceptualizing values as being organized in a cognitive hierarchy. However, ipsative measures have the disadvantage of not allowing for ties in the importance of values (evidence reported above does suggest that ties may be important). Also, since only rank order is evaluated, these measures do not consider the magnitude of a value's importance, and thus limit statistical flexibility.

Although it is our view that the conceptual nature of values should guide a choice of measurement instruments, we felt that a case could be made for using both ipsative and normal scales. We therefore wanted to compare, as directly as is possible given differing statistical approaches, a traditional Likert-type instrument with several versions of ipsative measures to help us determine possible avenues for measurement development. A research project comparing four approaches to measuring values is described below.

A COMPARISON OF MEASUREMENT APPROACHES

In order to devise as useful a comparison as possible between methods of measurement (given statistical limitations), several types of criteria for comparison were chosen as the basis for this study. As was discussed in the introduction to this article, our theory of values suggests that they should have an impact on both how environmental stimuli are perceived, and how choices are made. Thus, both perception and decision making

were examined in their relationship to the various measures of values described below. A second type of criterion involves measures used in the literature. We would expect that our measures should relate to instruments that have been used successfully in the past to measure conceptually similar values. A third criterion is that of social desirability response bias. As noted earlier, we recognize this as a major problem in values measurement. Even when using ipsative measures, if some individuals feel they will appear to be more socially desirable if they rank one specific value over others (for example, achievement for business students), this value may be moved up the hierarchy from its "true" position. Here we used a measure of the tendency to respond in a socially desirable way as a negative criterion; if it relates to a values measure, that values measure may be inadequate.

Values Instruments

The four alternative values instruments administered to 103 undergraduate business students were the following: a simple rank ordering of the values (rank measure), assignment of a fixed number of points among the values (point assignment measure), Likert-type ratings of behavioral incidents that were related to the value categories (Likert measure), and a forced choice measure based on the same behavioral incidents (forced choice measure). The behavioral incidents were similar to those used in Phase 2 of the transitivity study described above. Pairs of items were equated for social desirability and the extent to which each represented a value. Each of the measurement instruments assessed the four values described in Phase 2 of the transitivity investigation: achievement, concern for others, honesty/integrity, and fairness. The rank, point assignment, and forced choice measures were all purely ipsative in nature, and are therefore subject to statistical limitations. In order to directly compare the performance of the Likert measure with the other three approaches, for much of the analysis, the Likert measure was also used ipsatively (Hicks, 1970).

Each measure was evaluated in terms of its susceptibility to the effects of social desirability response bias by relating responses to scores on the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964). A strong relationship between a values instrument and the Marlowe-Crowne scale is an indication that the values instrument is biased by socially desirable responding. In addition to the Marlowe-Crowne, two measures of single values were also used as comparative criteria. The Pro-Protestant Ethic scale (Blood, 1969) hypothetically should relate to our various measures of achievement. The Social Interest Scale (SIS) developed by Crandall (1975) should relate to the alternative measures of concern for others.

The theoretical criteria required that we be able to evaluate perception and decision making of subjects. The perceptual task was a pseudo-recognition exercise similar to those employed in a number of other studies (Cottrell, Wack, Sekerak, & Rittle, 1968; Henchy & Glass, 1968; Zajonc & Nieuwenhuysse, 1964; Zajonc & Sales, 1966) to assess an individual's hierarchical ordering of responses. Here, we flashed 25 nonsense words on a screen, one at a time, too quickly for subjects to recognize the word. They were told that although they would not actually "see" the word, their mind would absorb its subliminal-image. They were then asked to "guess" at the value category most closely related to each word. Responses were hypothesized to correspond to the relative dominance of the concepts in a subject's cognitive hierarchy.

The decision task required subjects to make 20 separate overall evaluation decisions for 20 fictitious employees based on each employee's profile. Each profile contained an indication of the employee's performance on four dimensions corresponding to each of the four values of interest (fairness, honesty/integrity, helping, and achievement) using a seven point scale (1 = outstanding, 7 = poor). These value indicators were systematically varied across the profiles so that subjects evaluated profiles representing all possible combinations of high (2 = substantially above average) and low (5 = slightly below average) performance on the value dimensions, plus several duplicates. Using within-subject regression analysis, it was then possible to estimate the emphasis each subject placed on each dimension or value in making his or her evaluation by examining the four standardized beta weights obtained for each subject.

Theoretical Criteria

Intrasubject correlation coefficients were calculated between the scores provided by the four values measurement methods, the frequencies of value category responses to the pseudorecognition task, and the beta weights obtained from within-subject regressions of responses to the decision task. This procedure provided a measure of the relationship between scores on the various values measures and the responses on task criteria for each individual subject. To obtain between-subject results, intrasubject correlation coefficients were cumulated through the use of the Fisher r to z transformation (Wert, Neidt, & Ahmann, 1954). Results of this test are shown in Table 3. All results for ranks were reverse scaled to be consistent with other measures. The average Pearson r for each within-subject correlation is also presented in the table.

As can be seen from Table 3, the relationship between perception and the values measures was not very strong. However, both the ranking and point assignment measures significantly related to perception at the $p < .05$ level. For these two measures, individuals, in response to the ambiguous

Table 3. Relationship Between Values Measures and Task Criteria

Measure	Perceptual Task		Decision Task	
	Z ^a	r ^b	Z	r
Rank	2.48*	.148	5.16**	.347
Point assignment	2.21	.117	6.50**	.370
Forced choice	.23	-.004	2.88*	.182
Likert	.83	.053	.92	.090

^aStandard (Z) score adjusted according to the formula $Z = \bar{z} \sqrt{n(N-3)}$, where $\bar{z}$ = average z for the sample, n = the number of subjects in the sample, and N = the number of pairs of scores in the correlations.

^bAverage intra-subject Pearson correlation coefficient.

* $p < .05$

** $p < .01$

stimuli of the pseudorecognition task, tended to identify more often those values they had previously rated as more important. This was not the case for the forced choice and Likert measures.

Results relating values to decision making were stronger than those for perception. Value orderings obtained from the rank, point assignment, and forced choice measures related significantly to decision weights at the $p < .05$ level or higher. Subjects tended to give more weight to values that they had previously rated more highly in making their evaluation decisions. The Likert technique, however, did not result in a significant relationship with decision weights.

To relate the measures used here to the SIS and the Pro-Protestant Ethic, chi square statistics were calculated. Individuals who ordered concern for others as either their first or second priority were compared to those who ordered it as third or fourth to determine whether these groups scored differently on the SIS. Interestingly, the rank, point assignment, and forced choice measures all resulted in orderings which related to scores on the SIS as defined by a median split. Subjects who ordered concern either first or second on these three measures were more likely to score above the median on the SIS (phi coefficient = .345 for the rank, .317 for the point assignment, and .349 for the forced choice measures). Once again, the Likert measure failed to reach significance.

Findings relating the Blood Pro-Protestant Ethic to the values measures were inconsistent with the results reported to this point. In this case, the Likert measure outperformed the other measures tested. Achievement as measured by this scale was more likely to be ordered as less important by those subjects scoring below the median split on the Pro-Protestant Ethic, and ordered as more important by subjects scoring above the median (phi coefficient = .277). None of the other values measures showed any

relationship with scores on the Pro-Protestant Ethic. One must consider the fact that both our Likert measure and the Blood scale share a common measurement method, which suggests that common method variance may play a role in explaining the relationship found here. The SIS, on the other hand, is an adjective choice method, which is unlike any other measurement approach used here.

Of course, one of the primary concerns in carrying out this study was to determine whether social desirability response bias had a powerful distorting effect on values measurement. The Marlowe-Crowne test for social desirability was used here to investigate whether this was a problem for any of the measures used. Once again, chi square analysis was used to assess whether or not subjects were responding to social desirability cues rather than to their own values. Earlier inspection of the point assignment responses indicated that most subjects, if they did not have a full hierarchy of values, had at least one value that was clearly preferred over the others, even if the individual expressed indifference between the remaining values. This first value appears to be important in determining general patterns of response to the various values measures. This suggested that one possible test of the degree to which the different measures were subject to social desirability effects would be to assess whether the pattern of how many individuals picked each value first was affected by scores on the Marlowe-Crowne test. Therefore, the frequency with which each value was chosen first by the subjects was examined for both high and low scorers on the Marlowe-Crowne measure as determined by a median split. If low scorers chose as their first value achievement, concern, fairness, or honesty more or less often than high scorers, effects for socially desirably biased responses are indicated. None of the results of these analyses for any of the four measures showed significant relationships with the Marlowe-Crowne scale.

Because the Likert measure can be used normatively, that is, between subjects, between-subject tests were also performed for this measure. It is also the measure lacking in any control for social desirability response bias. Correlation coefficients calculated for the total score on the Likert measure and for each of the four subscales with the Marlowe-Crowne score indicated small but significant relationships ($r = .268, p = .003$ for the total Likert score; $r = .193, p = .026$ for the achievement subscale; $r = .195, p = .025$ for the concern subscale; $r = .293, p = .001$ for the honesty subscale; $r = .220, p = .013$ for the fairness subscale). These findings indicate that Likert responses were affected to some small degree by the concern for responding in a socially acceptable manner. We also examined the Likert subscales for reliability, and found that while each subscale was very reliable (Cronbach alpha = .946 and above), randomly selected questionnaire items exhibited equally high reliabilities (Cronbach alpha

= .914 and above), thus suggesting that people were responding to all the Likert items in a similar way, as equally socially desirable phenomena.

A STUDY IN THE PERCEPTION OF LEADER BEHAVIOR

The results of the above comparison of measurement approaches indicated that the rank and point assignment measures were related to the perception of stimuli, while the forced choice measure was not. While this provided compelling evidence in support of the effect of values on perceptions, we suspected that the rank and point assignment measures held an unfair advantage in this comparison because of the close correspondence between these measures and the perceptual task used. That is, both these measures and the perceptual task shared the same relatively simple descriptions of the four value categories. Although the forced choice measure was also designed to yield a rank ordering of values within each subject, this ranking was established by asking individuals to choose between statements that were essentially behavioral examples of the values in question. These statements were far more elaborate and descriptive than the simple definition supplied in the rank and point assignment measures. Thus, since the perceptual task was methodologically closer to the rank and point assignment measures than to the forced choice measure, there may have been some method bias in the results found.

The previous conclusion caused us to conduct an additional study comparing measures of values. This time we felt it necessary to employ a perceptual task that avoided the previously described bias inherent in the pseudorecognition exercise and provided greater external validity. Therefore, instead of presenting subjects with rapidly exposed nonsense words, we decided to ask a new set of subjects to view video tapes that presented various types of leadership behavior.

This methodology allowed a test of other hypotheses concerning the relationship of values to perception. The introduction to this article noted that individuals in contact with others who possess values similar to theirs may, because of the resultant predictability, find the relationship more satisfying. An additional reason for this effect is that individuals, quite apart from any interpersonal interaction, may simply have greater liking for persons they see as having values similar to theirs. For simplicity, this phenomenon is referred to as the "compatibility effect." This issue was examined by assessing the similarity between the values of individual subjects and their perception of the values of the hypothetical leader. It was felt that individuals would be more satisfied when the perceived behavioral style of the leader more closely reflected their own particular values. Furthermore, considering the results of the previous study, it was reasonable

to believe that situational ambiguity or uncertainty should influence this relationship. Specifically, if the behavior exhibited by a leader was highly uncertain with regard to values, one would expect individuals to perceive their own values in the stimulus. If, on the other hand, the behaviors were unambiguous (i.e., they were chosen to reflect only one value category), the situation would be less uncertain, and one would expect this effect to be less likely to occur. Thus one would predict a greater compatibility effect when a leadership style is more ambiguous.

The subjects used for this study were 61 MBA students and 63 banking executives. Subjects were first administered the forced choice and rank measures (described above). After a time subjects were assigned to two groups. One group viewed a video tape of a leader who was purposely selected to emphasize all four of the value categories. The second group viewed a video tape purposely selected to show a leader who emphasized only one of the four value categories. After they were shown the stimulus video tapes, subjects were asked to rate the extent to which the leader exhibited each of the four values in question (extent measures) on a six point scale varying from "not at all" to "under all circumstances." Subjects were then asked to choose the one value that the stimulus person would be most likely to express in an uncertain situation (dominant value measure). The four choices, again, were those previously discussed: achievement, concern for others, honesty/integrity, and fairness. Finally, each subject was asked to indicate how satisfied he or she would be: if they were "working for a manager who held the same values as the person in the film," and "if someone like the person shown in the film was your immediate boss." Ratings were given on a five point scale with anchor points ranging from "extremely dissatisfied" to "extremely satisfied" and were averaged to form a satisfaction measure.

The stimulus video tapes used to depict the various styles of leadership were edited versions of two popular motion pictures, *Patton* (McCarthy, 1970) and *Gandhi* (Attenborough, 1982). The scenes in each presentation focused on the behavior of the central character, and the presentations were of equal length (each took approximately 16 minutes). The scenes from the *Patton* film were chosen to reflect only the value of achievement. General Patton was portrayed as: a tough commander who assumes command of a defeated unit and immediately instills strict discipline; making severe demands on his troops so that he can beat the British General Montgomery to the Sicilian port of Messina; and successfully redeploying his troops, despite the feeling by other generals that he is asking his men to do "the impossible." The scenes taken from the *Gandhi* film were selected to reflect all four of the previously mentioned values. Mahatma Gandhi was described as a person who led his country to freedom using the virtues of humility and truth. He was shown: successfully leading a

passive resistance effort to repeal a law that abridged the freedom of Indians; engaging in a successful hunger strike to force Hindu and Muslim factions to stop fighting; and encouraging people to put aside revenge and treat others with fairness and concern.

In order to determine whether subjects saw differences in the values expressed by leaders in each of the films, an analysis was conducted of subjects' ratings of the extent to which each leader exhibited each of the four values (extent measures). As we suspected, subjects saw the Patton style of leadership as extremely high on the value of achievement (means for achievement, concern for others, honesty/integrity, and fairness were 5.74, 2.94, 4.92, and 3.14 respectively). The pattern of means for the Gandhi style of leadership was more uniform, indicating an emphasis on all four values (means for achievement, helping and concern for others, honesty/integrity, and fairness were 4.91, 5.14, 5.37, and 5.03 respectively). A multivariate analysis of variance for all four extent measures across treatment groups was significant, $F(4, 103) = 43.82, p < .001$. This indicated that, depending on the film they saw, individuals perceived differences in the values expressed by the leader. A similar pattern was evident in subjects' choice of the leader's dominant value (dominant value measure). Nearly every subject exposed to the Patton condition selected achievement as the leader's dominant value (frequencies for achievement, concern for others, honesty/integrity, and fairness were 47, 2, 1, and 0 respectively). The dominant values selected by subjects in the Gandhi condition were more widely distributed (frequencies for achievement, concern for others, honesty/integrity, and fairness were 14, 33, 20, and 7, respectively).

In order to assess the perceived uncertainty of the two leadership styles, an information theory approach was used. This approach examines the degree to which possible states of the environment or actions are equiprobable in occurrence. Equally probable events generate maximum uncertainty for the perceiver because he/she cannot confidently predict outcomes. In this study, each of four possible values could be exhibited. In the Patton condition, however, one value, achievement, was most likely to be displayed, as opposed to the Gandhi condition, in which each value had some realistic probability of occurrence. A significance test between the variances in the extent measures indicated that subjects in the Gandhi condition perceived significantly more variance in the expression of values than those in the Patton condition $F(3,3) = 10.65, p < .05$, thus indicating that Gandhi's value pattern was perceived as more uncertain than that of Patton.

Since analyses of the extent and dominant value measures indicated substantial differences in the leader's emphasis on values across the two conditions, it also seemed appropriate to determine whether subjects ex-

pressed differences in anticipated satisfaction across these conditions. A significance test for the satisfaction measure was therefore conducted between the two groups. As suspected, results showed that subjects anticipated significantly less satisfaction $t(106) = 5.39, p < .001$ with the Patton style of leadership ($M = 3.17$) than with the Gandhi style ($M = 4.19$).

In order to determine whether subjects saw their own values reflected in each leadership style, within-subject correlations were computed between the rank order measure of subjects' values (rank measure), the forced choice measure of subjects' values (forced choice measure), the extent measure of the leader's values, and the choice of the leader's dominant value. The resultant within-subject correlations were then converted to z scores using Fisher's r to z transformation, and averaged across all subjects in each condition. The average adjusted z scores for each condition are shown in Table 4 (all results for ranks were reverse scored in order to be consistent with the other measures).

As Table 4 indicates, there were significant relationships ($p < .01$) between both measures of subjects' values (rank and forced choice measures), and between both measures of leaders' values (extent and dominant value measures). The relationships between subjects' values and those of the leader, however, did not confirm our expectations. Despite the fact that the Gandhi leadership style was higher in uncertainty and anticipated satisfaction, there were no significant relationships between the subjects' values and their ratings of the values of the leader in this condition. On the other hand, there was some tendency for subjects to see their own values expressed in the Patton leadership style. When both the rank and forced choice measures of subjects' values were correlated with the extent measure of the leader's values, significant relationships were found between subjects' values and values expressed by the leader. Although they

Table 4. Average Adjusted Z Scores for Subjects' Values Measures and Leaders' Values Measures for Two Leadership Styles

	<i>Patton</i>			<i>Gandhi</i>		
Forced choice	3.74**			6.15**		
Extent	3.09**	2.22*		0.40	-0.03	
Dominant value	0.04	0.71	7.04**	0.13	-0.57	3.82**
	Rank	Forced Choice	Extent	Rank	Forced Choice	Extent

Note: Z scores were adjusted according to the formula $Z = \bar{z} \sqrt{n(N-3)}$ where $\bar{z}$ = average z for the sample, n = the number of subjects in the sample, and N = the number of pairs of scores in the correlations.

* $p < .05$

** $p < .01$

were in the correct direction, the two relationships involving the dominant value measure of the leader were not significant. A possible reason for this lack of a significant result is that the dominant value measure was too simple to capture a full value ordering, and thus did not provide enough variance to produce significant correlations.

Although it was not anticipated, the tendency for subjects to see their values expressed in the Patton leadership style may have some basis in prior research. In one study, subjects gave higher performance ratings to a leader who was consistent as opposed to one who pursued different courses of action (Staw & Ross, 1980). Perhaps subjects saw Patton as more competent, even though they anticipated less satisfaction with his style of leadership. The effects of perceived competence may well have overwhelmed the predicted effects of uncertainty. This explanation is extremely speculative and requires additional research.

The compatibility effect was examined using regression analysis with the dependent variable being the previously described subjects' rating of anticipated satisfaction with the leader. In order to control for the differences in satisfaction across the leader conditions, a code for the experimental condition (1 = Patton, 2 = Gandhi) was entered as the first independent variable in the equation. The second independent variable entered in the equation was the individual z score representing the correlation between the subject's values and the subject's rating of the leader's values. Since four such z scores were possible (i.e., scores for the correlation between rank and extent measures, rank and dominant value measures, forced choice and extent measures, and forced choice and dominant value measures) four separate regression equations were constructed, each with one of the four z scores entered in the equation as the second independent variable. In these equations, if the addition of the z score explains a significant amount of incremental variance in anticipated satisfaction, the presence of a compatibility effect is indicated.

The amount of incremental explained variance for each of the four equations is shown in Table 5. The reader should note that the reason the variance explained by the experimental condition is lower in cases where the extent measure was used is that the sample size was reduced because of missing data in these cases.

As Table 5 indicates, in the two equations that involved z scores based upon the rank measure, the addition of the z score explained a significant ($p < .01$) amount of incremental variance. These results suggest the presence of a compatibility effect even after controlling for differences in anticipated satisfaction between the two leaders, and for differences between the two groups in the tendency to see their values expressed by the leader. As in the previously described study, the results also provide further evidence for the superiority of a simple rank order measure of values in a

Table 5. Incremental Explained Variance (R^2) in the Prediction of Anticipated Satisfaction Based on Experimental Condition and Four Z Score Measures

Equation Term	Z Score Measures			
	Rank and Extent	Rank and Dominant Value	Forced Choice and Extent	Forced Choice and Dominant Value
Experimental conditions	.178***	.215**	.178**	.215**
Z Score measure	.065*	.054*	.005	.002

* $p < .01$

** $p < .001$

laboratory environment. While the behavioral choice and rank measures were equally able to detect the tendency for subjects to see their values in a leader, the behavioral choice measure did not result in a significant relationship between compatibility and satisfaction. While in our previous study the behavioral choice measure did not relate to perception, in this study, such a relationship was observed. This finding suggests that as research moves to more complex and less compacted environments this measure may well be more effective.

SUMMARY AND CONCLUSIONS

Several general findings can be identified from this program of research addressing the measurement of values. First, a hierarchical approach to both understanding and measuring values has received support here. Findings indicate that people can make transitive choices concerning values, which implies that relatively stable hierarchical orderings exist for value preferences. In addition, two other studies used hierarchical measurement instruments to good effect. Thus, despite the fact that all values tend to be highly socially desirable, individuals are able to distinguish between them in importance given the appropriate measurement instrument.

A second issue examined here was the role of social desirability in values measurement. The values identification study used a projective type device to elicit employee values without creating this bias, and it appears to have been successful, given some confirmatory patterns of demographic differences that were observed. No evidence indicated that social desirability

response bias remained a strong influence in ipsative or hierarchical measures; however, the Likert-type measures used throughout these and other projects not described above repeatedly failed to distinguish between the values identified here. This finding suggests that researchers investigating the role of values must be careful to observe for signs of social desirability response bias, and institute appropriate controls if it appears to be present.

The centrality of values as personal constructs also had implications for results observed here. In the study examining the transitivity of value preferences, repeated selection of value choices was needed to understand fully the organization of those preferences. In our first comparison of measurement approaches, repeated decision making was important to determining the pattern of impact that values had on decisions. If one instance of behavior or one choice is observed, it is not clear that any measurement approach will be able to assess a relationship between that instance and values. We noted earlier that patterns of relationships tended to be somewhat weak, despite their significance. This is entirely congruent with the belief that to discern the impact that values have on behavioral, cognitive, and attitudinal outcomes, individuals must be observed over multiple occasions.

Many questions remain concerning the development and refinement of work values measures. One observation from the two studies that compared measurement techniques was that a rank ordering of values was apparently the most effective in its relationship to criterion variables. However, this measure is transparent, and provides the respondent with only one opportunity to respond to each value. The behavioral forced choice measure, on the other hand, provides four separate pairings of each unique pair of values, and is less obtrusive and less easily manipulated by the respondent. Despite the fact that this measure performed less well in the studies described above, it did meet some of the criteria. It was suggested earlier that the laboratory nature of the tasks gave the ranking approach an unfair advantage. As we move into field tests of these instruments, we will be able more readily to determine the adequacy of each for predictive purposes.

Additional issues requiring further research include alternative cognitive organizations of values, the possible use of projective tests to avoid both the problems of social desirability response bias and the statistical restrictions created by ipsative measures, and the level of internalization of values that can be assessed by the various measures. These and other aspects of values measurement must be explored in more detail to provide a greater understanding of the operationalization of this very complex construct.

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COGNITIVE ABILITY TESTS IN EMPLOYMENT: ETHICAL PERSPECTIVES OF EMPLOYERS AND SOCIETY

Judy D. Olian and James P. Guthrie

The success of organizations in the public or private sector depends heavily on their ability to identify and attract people who can perform required tasks. A key to success on many jobs is cognitive ability. For example, based on numerous studies over the years, Hunter (1980) concluded that cognitive ability, as measured by the widely used General Aptitude Test Battery (GATB) developed by the U.S. Employment Service, contributes significantly to the performance on each of 12,099 jobs listed in the Dictionary of Occupational Titles (U.S. Department of Labor, 1977).

Faced with uncertainty in hiring decisions, employers frequently attempt to gain insights into an applicant's cognitive ability through the use of job

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knowledge and ability tests, standardized IQ tests, and assessment centers, all of which are herein termed "tests." The Bureau of National Affairs (1983) surveyed 437 companies selected at random from the membership of the American Society of Personnel Administration and found that 22 percent of them used some type of paper and pencil job knowledge test; 20 percent administered a test of mental ability; and 6 percent implemented assessment centers in hiring decisions. For promotion decisions, the numbers were 15, 10 and 7 percent, respectively. These results suggest that formal testing for cognitive abilities is a prevalent way of making selection and promotion decisions throughout the economy. However, the use of these tests raises ethical questions that need to be addressed. This essay examines the societal and ethical implications of using cognitive tests for employment decisions.

A discussion of employment ability tests can be separated into three general themes: (1) the test's technical and scientific qualities, most notably its validity or success in predicting future job performance; (2) the methods for implementing the test results; and (3) the consequences of implementing the tests (Messick, 1975). These dimensions of employment ability tests are not necessarily related. Moreover, even if employment tests measuring cognitive ability were perfectly valid (i.e., they could predict exactly an individual's level of job performance), there would still be several ways of using the test results in an employment context. For example, vacancies could be filled by hiring individuals in descending order of their test scores, or by eliminating those who failed to achieve a specified score on the test and then relying on some other factor (e.g., race or convenience) to choose among those remaining. These alternative approaches to using test results have significant implications for individual applicants, employers, and society as a whole. That validity and test score use are separate issues has been overlooked; "... scholars studying validity questions ... have sometimes assumed that the answers to the validity questions would also provide answers to questions of social policy" (Cole, 1981, p. 1069).

Using cognitively based tests to make employment decisions has a cumulative effect extending well beyond the single organization, potentially influencing the fabric of society. For example, fairly systematic differences on mean cognitive ability test scores emerge across different population subgroups. Moreover, research has shown that "... a difference in ability test scores is mirrored by a corresponding difference in academic achievement and performance on the job" (Hunter & Hunter, 1984, p. 73). Since cognitive test scores play such a key role in employment allocation decisions, the aggregate impact of employment tests for cognitive ability potentially influences access to economic opportunities for various subgroups of society.

In exploring the broader ramifications of employment cognitive tests,

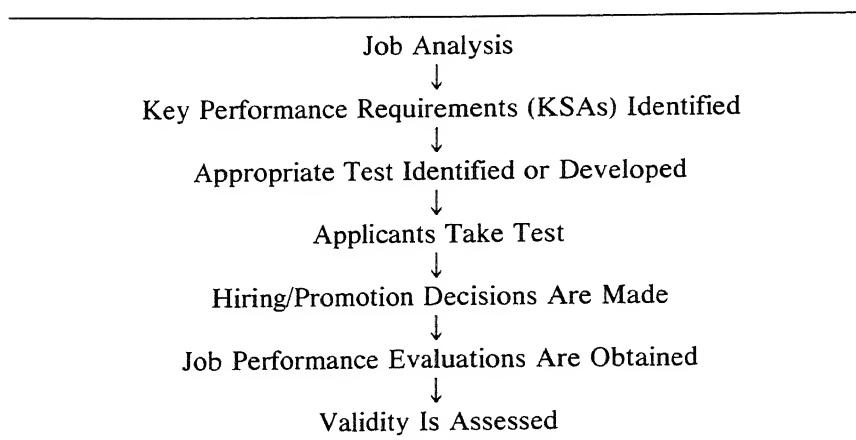
this essay considers two sets of interests for possible convergence and conflict: (1) the specific interest of one identifiable group, employers, and (2) the broad interest of society as a whole, including, in particular, potential job applicants. We begin the discussion of test implications with a brief overview of technical aspects of testing and then illustrate how test information can be used. Following this discussion, the social and ethical implications of alternative methods of implementing cognitive test information in employment are considered.

TECHNICAL OVERVIEW OF TESTING

In order to be on safe legal footing, an employer using a test for hiring or promotion purposes must follow certain systematic procedures (see Figure 1). Jobs are analyzed to determine their content and to identify the key employee competencies (often referred to as knowledge, skills, and abilities, or "KSAs") required for effective job performance. Tests that may measure the necessary competencies are located by scanning the literature, examining screening practices used on comparable jobs, or by designing tailor-made tests and procedures.

There are various approaches for evaluating the effectiveness of a test. One is to assess its validity, the extent to which a test successfully predicts job performance. The traditional way of establishing validity is to compare test scores (the predictor) with indices of job performance (the criterion, e.g., supervisory ratings), using statistical estimates of association. These statistical estimates, generally correlation coefficients ranging from -1

Figure 1. Typical Approach for Introducing Testing Procedure



to +1, indicate the accuracy of the test in predicting performance levels. Correlations of ± 1 reflect perfect ability to predict job performance on the basis of a given test score; when correlations of 0 occur, no valid inferences about job performance can be made from a given test score.

A related approach focuses on the proportion of correct versus incorrect decisions made on the basis of a test. Figure 2 presents a two-dimensional classification framework for hiring or promotion decisions. The dimensions are: (a) an individual falls above (below) a certain test score and is hired (rejected); and (b) the employee is successful (unsuccessful) once on the job. In order to use the classification scheme, job performance data must be known about all individuals, including those not admitted to the job. For those not hired, performance data are extrapolated from various samples of individuals with similar test scores who were admitted to the job. Correct positive decisions involve candidates who score well on the test, are hired or promoted, and subsequently turn out to be successful job performers; correct negatives involve candidates who score poorly on the test, are rejected and, had they been admitted, would have failed on the job. The two types of incorrect decisions are: (1) false positives—candidates with passing scores on the screening device who turn out to be job failures; and (2) false negatives—candidates rejected on the basis of low test scores but who, had they been admitted to the job, would have proven successful.

Using this framework, decision accuracy can be evaluated in more than one way. From the employer's perspective where concern is primarily with the direct effects of decision errors, the accuracy of a test could be seen as the number of correct employment decisions among individuals actually hired, i.e., quadrants:

$$\frac{II}{II + IV}$$

Figure 2. Classification of Employment Decisions

		TEST SCORES	
		Below cutoff	Above cutoff
JOB PERFORMANCE	Satisfactory Performance	I False Negative	II Correct Positive
	Unsatisfactory Performance	III Correct Negative	IV False Positive

A broader approach to evaluating decision accuracy might take into account the effect of the test on all individuals subject to it, thereby reflecting the test's impact on applicants turned away by employers as well as on those hired. In certain highly competitive areas (e.g., professional athletics) employers are keenly aware of the opportunity costs (e.g., lost ticket sales or concession revenues) associated with incorrect rejection decisions. There is also a public interest in minimizing the number of individuals incorrectly rejected by employers, since aggregate productivity may suffer when potentially successful individuals are not being used in positions for which they are qualified. Moreover, correct negative decisions have direct societal benefits in steering unqualified individuals away from jobs in which they would be unsuccessful. Thus, global decision accuracy would reflect the accuracy of employment decisions both among those hired and among those not hired; i.e., the proportion of correct decisions relative to the total applicant pool; or quadrants:

$$\frac{\text{II} + \text{III}}{\text{I} + \text{II} + \text{III} + \text{IV}}$$

There is a third dimension along which tests can be evaluated, which has received the most scrutiny and discussion: the extent to which features apparently unrelated to job success (e.g., race or sex) correlate with test scores. Such correlations signal potential weaknesses in a test, indicating that it may be measuring attributes not necessarily related to job performance. While many extraneous factors might influence test results (e.g., personality attributes such as self-confidence or temporary conditions such as fatigue on the day of the test), Congress has singled out demographic (race, sex or ethnicity) correlates of test scores as reasons for rendering a test suspect. The Uniform Guidelines for Employee Selection Procedures (Federal Register, 1978) specify criteria for evaluating tests for legal purposes, including the extent to which they are "fair" to various demographic groups. A test is potentially unfair if results show adverse impact against a protected group. Adverse impact is defined in the Guidelines according to an 80 percent rule, where:

A selection rate for any race, sex, or ethnic group which is less than four-fifths (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact . . . (*Federal Register*, 1978, Sec. 3.D).

If the 80 percent rule is not met for a protected demographic group, the test is open to legal challenge by adversely affected parties. In order to address these concerns, employers must show that the test is valid, i.e.,

that group differences in test scores mirror actual differences in job performance and that they are not merely artifacts of the test.

Evidence on Cognitive Tests

Several reviews of the validity of cognitive ability tests in predicting job performance have been conducted. The major relevant findings are reported in Table 1. Most of the reviews suggest that cognitive tests provide satisfactory predictions of job performance. Schmitt et al. (1984) included only results from published validity research, while other reviews (e.g., Hunter & Hunter, 1984) included a number of large-scale, well implemented unpublished studies, and this difference in coverage may explain the more favorable findings. While validity indices observed for assessment centers were generally good, it is unclear whether successful predictions of job performance are attributable to the cognitively oriented tests included in assessment centers, or to alternative types of exercises or processes involved (e.g., leadership or stress management).

Beyond global estimates of validity, some research has examined the distribution of cognitive test scores as a function of demographic features. On average, blacks score at one standard deviation below whites on cognitive ability tests, and this test difference mirrors performance differences between blacks and whites on jobs involving cognitive skills (Hunter & Hunter, 1984; U.S. Employment Service, 1970; Wing, 1980). That test score differences carry through to job performance differences implies that the tests are equally valid for both groups. The results with regard

Table 1. Validity of Cognitive Ability Tests in Employment Settings

<i>Author</i>	<i>Type of Test</i>	<i>No. of Validity Studies</i>	<i>Mean Validity¹</i>
Cohen, Moses and Byham (1977): ²	assessment center	21	.43
Dunnette (1972): ²	cognitive ability	215	.45
Hunter and Hunter (1984):	general cognitive ability	515	.45
Schmitt, Gooding, Noe and Kirsch (1984):	special aptitude	14	.16
	general mental ability	25	.22
	assessment center	6	.43

¹A correlation of 1.00 denotes perfect prediction of the criterion.

²Reanalyzed by, and reported in Hunter and Hunter (1984).

to other demographic groups are somewhat ambiguous (e.g., Schmidt, Pearlman, & Hunter, 1980), but Hispanic Americans appear to have slightly lower average performance on cognitive ability tests than whites (Flaugher, 1971; Wing, 1980). Furthermore, on average, males score a little higher than females on tests of general information and ability (Backman, 1972; Wing, 1980).

SIMULATION ANALYSIS OF TEST SCORE SCREENING DECISIONS

Test score information can be used in a variety of ways to make employment decisions. Three key decision alternatives are: (1) hiring individuals in declining order of their test scores ("top down" hiring), regardless of demographics (labelled here the *merit principle*); (2) hiring individuals in declining order of their test scores *after* classifying them into demographic (e.g., racial or ethnic) groups (labelled here the *quota system*); (3) hiring randomly after eliminating all individuals falling below a minimum test score (labelled here the *minimum competency* approach). These three strategies are fairly realistic summary descriptions of practices implemented across various organizations (Hunter & Hunter, 1984).

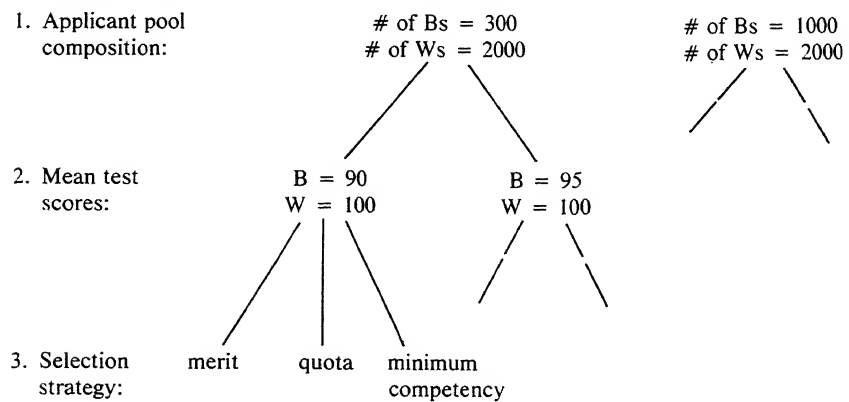
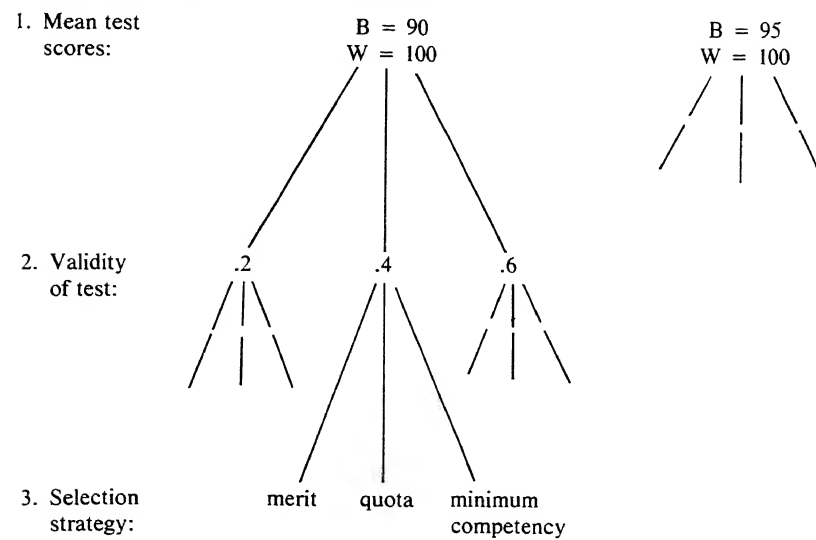
In order to illustrate the effects of implementing alternative employment decision strategies, simulations were run under various ability testing conditions (see Figure 3).¹ The testing conditions were: (1) the level of test validity (correlations of 0.2, 0.4 or 0.6); (2) the size of the minority (black-B) versus majority (white-W) applicant pools (300 or 1000 black applicants compared to 2000 white applicants); and (3) the mean cognitive ability and job performance difference between the black and white groups (0.5 or 1.0 standard deviation, in favor of the white group).

Though previous evidence suggests that 0.4 is the typical validity of a cognitive ability test (see Table 1), the two additional validity levels around this figure (0.2 and 0.6) were included in the simulations for comparison purposes. Variations in the size of the black applicant pool were designed to examine the effects of more aggressive recruiting strategies directed toward minorities. Differences in mean test scores and job performance between the subgroups (0.5 and 1.0 standard deviation units) reflect documented evidence in the literature on black/white differences along these performance dimensions (Hunter & Hunter, 1984).

The effects of these variations on hiring rates within each subgroup (black and white), on different categories of selection decision outcomes (correct positives and negatives; false positives and negatives) and on decision accuracy were examined. Appendices A and B present a portion of the simulation results on hiring rates, and on frequency and accuracy of selection of outcomes, respectively. Table 2 is a very general summary of the selection outcomes for the hiring strategy simulation.

Figure 3. Summary of Simulated Conditions

I. Conditions Imposed for Hiring Rate Simulation

II. Conditions Imposed for Selection Accuracy Simulation¹

¹For this analysis, applicant pool composition was fixed at # of Bs = 1000, # of Ws = 2000.

Table 2. Summary of Hiring Strategy Simulation Results¹

<i>Hiring Strategy</i>	<i>Accuracy²</i>	<i>Adverse Impact³</i>
Merit	-high for Bs -moderate for Ws	-occurred in all conditions
Minimum competency	-low for both Bs and Ws	-occurred in most conditions ⁴
Quota	-moderate for Bs -high for Ws	-none

1. See the appendices for a more detailed presentation of the simulation results.

2. This reflects the general trends for simulation results for two accuracy criteria: (1) the proportion of individuals, among those hired, who perform successfully; (2) the proportion of individuals, among all applicants, who are correctly hired or correctly rejected.

3. Adverse impact is defined in the Uniform Guidelines for Employee Selection Procedures (Federal Register, 1978) as "A selection rate for any race, sex, or ethnic group which is less than four-fifths (or eighty percent) of the rate for the group with the highest rate . . ." (Sec. 3.D).

4. Adverse impact occurred in all conditions except only in the most favorable simulated condition for Bs (i.e., a higher B mean test score and a proportionately larger B applicant pool).

Several key results of the simulated effects of the alternative selection strategies are noteworthy. First, regarding hiring rates (see Appendix A), adverse impact occurs against Bs under most testing conditions. Only use of a quota guarantees equal numbers of hires among Bs and Ws, regardless of the size of the applicant pool. At the same time, quotas reduce the proportion of Ws relative to Bs who are hired. There is also one instance using a minimum competency approach, where adverse impact is not evident against Bs. That occurs where the B applicant pool is half as large as the W applicant pool. In other words, aggressive recruiting can achieve fairly equal hiring rates when a strategy is used that allows for consideration of all applicants with a test score above a specified minimum level.

Second, when the relationship between test scores and job performance (i.e., validity) is considered, the particular selection strategy used affects decision outcomes for each subgroup and also results in different levels of accuracy (see Appendix B). In particular, the number of incorrect classification decisions is greatest under a minimum competency strategy, particularly when test validity is low. The accuracy of the test, both among those hired and globally, generally is not better than the base rate in the population. The base rate is the proportion of applicants who would have been successful on the job if random hiring decisions were made.

The merit system results in more accurate selection outcomes than does the minimum competency approach since it is more restrictive in admitting candidates into the organization. Few Bs are hired under a merit system, particularly when there are larger mean test score and job performance

differences between the B and W subgroups. Among Bs, few incorrect decisions are made, since most Bs are accurately classified as correct negatives, given the lower mean test and job performance scores in the group relative to Ws. Though many more Ws than Bs are hired, more Ws are also incorrectly rejected despite their ability to succeed on the job were they to have been hired (i.e., false negative decisions). Given tests that are not perfectly valid, there are also more cases of Ws rather than Bs being admitted to the organization and subsequently failing on the job (false positive decisions). This occurs because Ws constitute a larger share of the applicant pool and they score higher than Bs on the cognitive screening test.

The quota system guarantees that equal numbers of Bs and Ws will be hired. For Ws, the quota system is more accurate than either merit or minimum competency approaches because the reduced numbers of Ws hired leads to a concomitant reduction in false positive decisions (see Appendix B). Among Bs, quotas are more accurate than minimum competency approaches but less so than merit systems because of the increase in the number of false positive decisions as more Bs are hired. As the test becomes more valid and the mean test and job performance differences between the B and W subgroups diminish, the advantage of merit systems over quotas is essentially eliminated (see Appendix B, illustration 5).

Several general conclusions can be reached on the basis of these simulations. First, by definition, a test that is less than perfectly valid results in selection errors. However, the simulation data show that tests of even marginal validity (e.g., correlations of 0.2) typically improve the accuracy of employment decisions over random selection, i.e., the base rate. The single exception to this generalization occurs when test results are used to screen out the lowest scoring candidates (as in the case of minimum competency decisions) and accuracy is evaluated only among those hired. Admittedly, the base rate is a somewhat unrealistic yardstick for comparison purposes since it assumes a hiring process in which no selection hurdles are imposed. While the marginal contribution of tests to selection accuracy is likely to be smaller when other screening devices are used in conjunction with the test, there is substantial evidence in support of the superiority of tests over most other screening devices (especially the ubiquitous job interview), particularly for jobs with cognitive elements (see, for example, Tenopir, 1981).

With regard to the effects of tests on subgroup hiring rates, these examples generally illustrate that if there are differences as small as 0.5 standard deviation units in mean test scores between two groups, large inequalities occur in the hiring rates of the groups. This is true even when a less stringent selection approach is used such as the exclusion of only the poorest test performers (i.e., the minimum competency strategy). De-

spite a larger absolute number of hires among minorities when the size of the applicant pool is increased, major disparities in hiring rates remain between the subgroups. In fact, when any differences in test and job performance exist between two groups, parity in hiring rates is achieved only if a quota is imposed. However, this is accompanied by an increase in false positive errors for the lower performing group relative to error rates occurring under alternative screening approaches.

In terms of selection errors within each subgroup, accuracy of selection decisions among those hired is typically higher for the majority group, because of a lower proportion of false positives relative to the minority group. However, global accuracy indices of the test are slightly lower for the majority relative to the minority group because more people are incorrectly rejected (false negatives) in the former group. Slightly fewer selection errors are usually made when employers apply more restrictive decision rules. In the case of minorities, this almost always occurs under a merit principle, though the advantage of merit decisions over quotas is minimal when the tests are more valid and when test and performance levels among Bs approximate those of Ws. For Ws, quota systems restricting the number of Ws hired to 50 (out of 100 total hires) typically produce the lowest rate of selection errors.

While the particular hiring strategy used changes the absolute numbers of applicants assigned to each decision category (i.e., "hire" vs. "not hire"), differences in global indices of test accuracy are only minute. This is not true, however, when test accuracy is evaluated only among those hired, i.e., the index relevant to single employers. Noticeable differences occur in decision accuracy. The least accurate approach occurs when hiring decisions are random after excluding the lowest 20 percent of test scorers. Note also that decision accuracy among Bs hired is lowest for this minimum competency approach despite the fact that a larger absolute number of Bs are hired under a quota system.

Using standard testing criteria such as selection errors and subgroup success rates, the simulation outcomes clearly illustrate that tests can be implemented in a variety of ways, leading to vastly different results for members of these subgroups. Alternative approaches to test usage create tradeoffs between selection accuracy and the impact on members of various subgroups. Which criteria are emphasized is a question of values and objectives.

It becomes important, therefore, to make explicit the objectives served by tests from the perspectives of the two primary entities with an interest in their use and consequences. As identified at the outset, these are, first, the specific interests of the employer, who is the most direct consumer of ability test information in the employment context. The second is society, reflecting the common interests of all affected parties including those

of various racial, ethnic, and job applicant subgroups. We evaluate the extent to which alternative methods of using test information meet the objectives of these two primary interest groups.

THE IMPACT OF COGNITIVE ABILITY TESTING

Morality and Fairness Issues

Any evaluation of a practice implies the use of some set of standards or yardsticks against which judgments are made. These standards necessarily reflect certain moral principles or beliefs about fairness. Philosophers typically judge whether a practice is moral using one of three approaches: (1) a utilitarian approach, which examines the net sum of benefits and costs of the practice; (2) a rights approach, judging whether or not the practice violates basic human rights; and (3) a justice approach, which evaluates whether the practice leads to a fair or unfair allocation of society's benefits and burdens (Velasquez, 1982).

A utilitarian approach to employment decisions would suggest that job allocations should be based on those criteria or practices that maximize society's gain, however defined. To the extent that ability- (or merit-) based allocation decisions result in the highest productivity, the utilitarian criterion would favor a strict meritocracy; any other basis for selection decisions would necessarily lead to less productivity. The utilitarian criterion has been criticized, however, on two grounds. First, society's welfare may be advanced if factors other than merit (e.g., need, sex, or race) are considered. For example, social welfare may be increased if a job is offered to a single mother because of her extreme neediness, rather than to an applicant with a higher test score but fewer needs (Daniels, 1978). Second, utilitarians have been challenged on the basis that this approach might be used to legitimize some forms of discrimination (e.g., on the basis of sex). For example, if it was believed that society benefits from having one sex nurtured into the family-raising role and the other sex socialized into the role of economic provider, one could argue on utilitarian grounds for preferential treatment of males for jobs. Despite these criticisms, however, utilitarians forcefully claim that merit is the most socially efficient means of allocating individuals to jobs (Dworkin, 1977).

Those analyzing employment decisions using a rights approach argue that all individuals have a right to be treated (in Kantian terminology) as "ends" rather than as "means" to the objectives of others. Use of tests may be seen as violating the rights of individuals because the test may relegate those who score low to fewer job opportunities and lower salaries. Proponents of merit based decisions (e.g., Daniels, 1978) rebut this position

with the claim that it is consistent with utilitarian moral principles to discriminate on the basis of ability (e.g., by using test score information) since this characteristic of individuals is relevant to job performance.

The morality of employment practices also has been debated on standards of justice. Justice takes at least two forms: (1) procedural justice, the perceived fairness of the means, rules, or processes through which decisions are made (Folger & Greenberg, 1985; Thibault & Walker, 1975); and (2) distributive justice, the perceived equity of the outcomes of the decision (Freedman & Montanari, 1980; Walker, Lind, & Thibault, 1979). In the context of screening decisions, procedural justice refers to the perceived equity of the screening processes and decision rules, such as the perceived fairness of the tests used or the way they are administered and scored (a form of "face validity"). Distributive justice refers to the extent to which the hiring outcomes themselves are seen as fair. Disparate selection rates for different demographic subgroups might raise questions on this criterion. Folger and Greenberg (1985) summarized the organizationally relevant research on procedural justice and concluded, with some qualifications, that: (1) satisfaction with decisions appears more heavily influenced by perceptions of procedural rather than distributive justice; and (2) the two concepts are not independent of each other, i.e., a decision will be perceived as less acceptable if the procedures leading up to it are not seen as fair.

Whether the outcomes are perceived as equitable or inequitable depends on the specific concept of distributive justice employed. Deutsch lists the following key values that impinge on the distribution of outcomes to individuals:

1. so that all receive outcomes proportional to their inputs
2. as equals
3. according to their needs
4. according to their ability
5. according to their efforts
6. according to their accomplishments
7. so that they have equal opportunity to compete without external favoritism or discrimination
8. according to the supply and demand of the market place
9. according to the requirements of the common good
10. according to the principle of reciprocity
11. so that none falls below a certain minimum (Deutsch, 1975, p. 139).

Deutsch concludes that where economic productivity is a goal, those who are capable of producing more have a claim to a greater share of the resources; thus, merit systems based on ability tests would appear consistent with the relevant equity principle (number 1 above). Where social rela-

tionships are the primary emphasis, however, other determinants of distributive justice, e.g., equality or reciprocity, are appropriate. For achievement of personal development and welfare goals, Deutsch proposes need as the key value. In summary, Deutsch sees legitimacy arising from multiple values underlying distributive justice, depending on the social purpose involved.

Daniels (1978) also addressed the alternative values underlying distributive justice. Depending on the dominant value, he developed a scheme of alternative systems of distributive justice, all subsumed under what he rather inaccurately called a meritocratic approach. The versions of "meritocracy" proposed by Daniels are:

1. unbridled meritocracy, where those with power capture whatever rewards they can;
2. desert meritocracy, where individuals are rewarded proportional to their job contributions. Contributions could be gauged using productivity measures or some other criteria such as moral worthiness;
3. a utilitarian approach, which allows inequalities in the interest of maximizing average or total utility;
4. a maximin system, where inequalities are created to maximize the gains of those worst off in society;
5. strict egalitarianism, where all are rewarded equally;
6. socialism, which rewards individuals on the basis of need.

In Daniels' framework, a reward is any positive outcome, such as receipt of a job. Thus, a strict ability-based decision framework for personnel decisions would conform to Daniels' second category and to Deutsch's first and fourth categories; individuals would obtain jobs and associated outcomes because of their superior job-specific abilities and (anticipated) contributions. A modified version of this principle is the utilitarian approach, benefiting the common good (Daniels number 3 and Deutsch number 9). An example would be the allocation of individuals to jobs on the basis of the best array of person-job matches to maximize aggregate productivity, even if there exist certain individual-job matches which might yield higher productivity for a particular job.

Several other principles of distributive justice are relevant to employee selection. The maximin system (Daniels number 4) can be related to affirmative action or quota strategies in which those historically disadvantaged obtain special benefits to improve their access to and rewards from jobs. Deutsch's last category (number 11) can be seen as a weak version of a quota, in which disadvantaged individuals are given special treatment only to the point of assuring they do not fall below a certain employment level or standard of living. Alternatively, strict egalitarianism (Daniels

number 5 and Deutsch number 2) would entail decisions which are not based on traditional measures of merit or ability. An example would be a system in which individuals are given jobs on the basis of a lottery or some other random method of distribution.

Both Daniels and Deutsch make the point that efficiency (i.e., merit) is only one of several possible values underlying the just distribution of social goods such as employment. Hoffman (1977), however, is one of many who would argue against methods of allocation other than pure merit. He points out that denying individual differences in ability or merit is denying a fact of nature. Accordingly, "justice requires that dissimilar cases be treated differently in direct proportion to the relevant differences between them" (Hoffman, p. 368). Hoffman views nonmerit-based allocation methods designed to rectify past injustices as detrimental to the common good unless there is some way of calculating a remedy proportional to the level of past injustice.

In his seminal book, *A Theory of Justice*, John Rawls' conception of justice is in close agreement with Daniels' maximin principle (category 4). According to Rawls: "All social values—liberty and opportunity, income and wealth, and the bases of self-respect—are to be distributed equally unless an unequal distribution of any, or all, of these values is to everyone's advantage" (p. 62). At the heart of Rawls' notion is a belief that inequalities (i.e., differences) in life prospects are justifiable only when differences improve the lot of those individuals who constitute the least advantaged group. Rawls recognizes the fact of nature that inequalities of natural endowment occur at birth; however, these inequalities are a result of happenstance. Instead of implementing policies to eliminate these inequalities, differences in ability among individuals should be put to the service of the common good. Thus, assigning better jobs to those with higher levels of ability (and the resultant higher levels of psychic and material rewards) is justifiable to the extent that this also leads to a betterment of those less able. But, as Wolff (1977) points out, the identification of those worse off is far from straightforward. "When we ask which individuals in an industrial society are to be construed as constituting the 'least advantaged group,' it is not at all obvious whether we are to focus on the working class as a whole, or on unskilled workers, or on black, unskilled women, or whatever" (p. 27).

A recent empirical study by Greenberg (1986) showed that employees focus on both procedural and distributive characteristics of organizational practices. Further, as indicated before, research suggests that these perceptions are not independent of each other (Folger & Greenberg, 1985). Second, the theory is predicated on individual differences in beliefs about relevant input variables. Some people might perceive skills and ability to be the appropriate basis for determining the level of outcomes; others

might view some other standard (such as need, or perhaps historical under reward) as legitimate inputs.

Variability in beliefs regarding the appropriate bases for allocating rewards was supported in research by Larwood, Levine, Shaw, & Hurwitz (1979). They found that individuals who believed in the fairness of equity based exchanges (i.e., that rewards should be based on differences in inputs) saw performance and ability scores as an appropriate basis for allocation decisions (race and sex as bases for allocation were not studied). In contrast, individuals who believed in egalitarianism regarded ability or performance scores as relatively unimportant justifications for allocation decisions. Instead, cooperation, time, and effort invested were seen as appropriate bases for allocating rewards. Accordingly, individuals with lower levels of ability still have equal chances of obtaining rewards. The implications of this study are that acceptance of inequality in abilities as a basis for distribution decisions depends on one's philosophy about exchange relationships.

Selection strategies are procedures for allocating outcomes among individuals, where the outcomes are the extrinsic and intrinsic benefits of holding a job. As is evident from the above discussion at both normative and empirical levels, there is wide divergence in beliefs about the values that should be the basis of "just" methods of allocation. Thus, it is not possible to evaluate the consequences of ability-testing procedures against a uniformly accepted principle of allocation. A more realistic approach is to acknowledge the legitimacy of multiple principles of allocation, depending on situational and practical constraints. Accordingly, an attempt is made to summarize these situational and practical constraints and evoke pragmatic criteria in evaluating the uses and consequences of ability testing in the employment context.

Three questions are addressed: (1) What are the pros and cons of using ability test information for employment allocation decisions from the perspectives of employers and the common good? (2) Are there tradeoffs between the interests of these two perspectives? and (3) How acceptable are these tradeoffs?

The Employer's Perspective

Employers use ability test information as an aid in screening potential and actual employees. The information can be used to make initial cuts among applicants, to assist in final hiring decisions, to determine optimal person-job matches, and/or to identify areas in which employee training and development are indicated.

The simulations presented previously clearly illustrate that the specific economic interests of employers are furthered through the use of em-

ployment tests. In almost all cases, using the test improved the employer's ability to identify successful job incumbents. This was generally true even when the test had low validity and test score information was used non-selectively (as in the minimum competency approach).

The ability to identify potentially successful employees correctly translates into dollar savings for an employer. These savings occur both directly (lower socialization and initial training costs and higher quality and quantity of performance among incumbents) and indirectly (more promotable workers, fewer separations due to poor performance, and associated reductions in severance and replacement costs). Numerous examples exist in the literature of calculated savings in labor costs through the implementation of valid, ability-based selection decisions (as examples, see Cascio, 1982; Hunter, 1979; Schmidt, Hunter, McKenzie and Muldrow, 1979). In turn, these cost savings can be invested in growth areas for the firm.

The simulations presented previously also illustrated that in some cases, departure from a "top down" hiring approach on the basis of test score information did not compromise test accuracy to a great extent. This was true of quota-based decisions but not of a minimum competency approach. This finding is supported by calculations performed by Hunter and Hunter (1984), who estimated the dollar savings for the Federal Government (a workforce of approximately 3 million) if the GATB test were used as a basis for allocation decisions. A merit approach would translate into annual savings of \$15.61 billion over the base rate, a 50-50 quota \$14.83 billion in annual savings, and a minimum competency approach \$2.5 billion in annual savings.

Thus, test scores can be implemented to achieve racial equality with relatively small losses in economic benefits, as long as the hiring quota requires merit-based decisions within each subgroup. The minimum competency approach, in which individuals are hired randomly within each subgroup after the lowest scorers have been excluded, is not successful in achieving either parity in hiring rates or substantial cost saving over the base rate.

Direct dollar indicators are not the only criteria that can show positive effects of employment decisions on the basis of ability tests. Less tangible benefits occur through improved employee-job matches. Individuals obtain the intrinsic satisfaction of realizing their potential on jobs capturing their idiosyncratic mix of skills and abilities. More stable employment policies also are possible because of a reduced need for involuntary separations. Ouchi (1981), among others, has discussed morale and quality of work life improvements associated with stable employment policies of a firm. All of these factors would have a positive impact on employers.

While there are clear benefits to employers from the use of ability test

scores, there also are costs. If the test is constructed in-house, the most immediate administrative cost is the expense of developing, validating, implementing and scoring the test (see Outerbridge, 1979, for a survey of these costs). Alternatively, the organization could choose to purchase a standardized test and pay a fee each time it is administered. There also is the burden of assuring that any test used will survive legal scrutiny. This requires examining the test for job relatedness and fairness.

Indeed, the test might be a subject of legal examination in light of inequalities in selection rates across subgroups differing on race (e.g., Hunter & Hunter, 1984; Hunter & Schmidt, 1982a), ethnicity (Gael, Grant, & Ritchie, 1975) and potentially, sex (e.g., Tenopyr & Oeltjen, 1982; Wing, 1980). Except under a strict quota system, if majority and minority group members are unequal on average test scores and/or number of applicants, minorities will be hired at rates less than those for majority group members (see examples in Appendix A). This may expose the employer to a discrimination suit. The burden of proof then shifts to the employer to show that disparate hiring rates are related to business necessity.

Courts are more likely to closely examine traditional paper-and-pencil cognitive ability tests than other selection devices such as interviews, since tests appear to have an inherent "face validity" problem. Examinees are less trusting of these types of tests, and paper-and-pencil tests are more inviting of legal challenge because the practice in question is available in "black and white." In fact, this situation has led some employers to abandon the use of employment tests altogether (Tenopyr, 1981). However, the growing evidence in support of the contributions made by tests to productivity is predicted to lead to a resurgence in their use (Norton & Gustafson, 1982).

As illustrated previously, using ability test score information in a top-down fashion will result in unequal representation of blacks and whites in employing organizations. Aside from potential legal considerations, employers may be disinclined toward a racially, ethnically, or sexually homogeneous workforce for philosophical or community image reasons. However, these employment differences can be attenuated through aggressive recruitment of minorities or, at the extreme, by imposing a quota system (see Appendix A).

The Common Interest

Just as employment decisions based on ability information have an impact on the specific interest of the firm, they also aggregate to affect broader interests in employment opportunities and productivity in society. Hunter and Schmidt (1982b) estimated that cost savings from an ability-based allocation system implemented across the total economy would be

between \$50 billion and \$100 billion annually. These figures are comparable to the annual amount of corporate profit in the United States. It is important to make explicit the strong assumptions underlying these calculations. In particular, Hunter and Schmidt assume optimal match between all available vacancies and all job seekers across the total economy. Since such a perfect match is entirely unrealistic, the estimates of dollar savings are excessively high; however, more realistic estimates would yield aggregate labor savings at more moderate levels than those estimated above.

Using global indices of test accuracy as the criterion, it appears that the common interest is benefited regardless of the decision rule implemented. This result is achieved because global test accuracy, in contrast to employer specific indices of test accuracy, is sensitive to both correct and false negative decisions, i.e., the accuracy of the "reject" decision (see Appendix B). In the particular scenarios simulated here, the vast majority of individuals were unqualified and, therefore, accurately assigned to the correct negative category, regardless of allocation rule. If the common interest considers as equally important the accuracy of selection decisions among those turned away by an employer as well as among those hired, then ability test scores following any of the three approaches examined here will achieve large improvements over the base rate.

Given the fact that the overwhelming majority of individuals are correctly turned away from the job by any nonrandom allocation system, a clear preference for a merit-based approach would appear unwarranted from an aggregated social perspective. However, this conclusion is contingent upon the base rate—the proportion of individuals who would succeed on the job if no tests were used to select them. If the base rate of the population were to improve, a smaller number of test-takers would be classified as correct negatives, and global accuracy of the allocation strategies would likely vary as a function of decision rules used.

Several additional social benefits are derived from the availability of accurate ability information about individuals. Objective indices of ability provide a relatively value-free mechanism through which society can identify groups that have been typically under-rewarded relative to their "fair share" of employment opportunities. Indeed, indices of ability, contrasted with indices of attainment, are traditionally used by economists to establish whether particular subgroups are disadvantaged. If they are, there is then an examination of whether attainment shortcomings can be explained by voluntary choices of members of the subgroups (e.g., the decision not to invest in highly rewarded skills) or by external barriers to attainment. Ability information can then be used as an objective basis for designing proactive policies toward certain subgroups.

In many mid- to upper-level jobs, ability differences among employees are purportedly the single most important factor in determining job al-

locations. Cognitive ability tests become a relatively efficient means through which the rationale for an employer's assignment decisions can be monitored by society. When disparate impact is evident, society has objective grounds to sanction employers unless they can show a relationship between ability information and the nature of job assignments. In other words, society condones principles of distributive justice that emphasize job-relevant abilities (and therefore tests of these abilities) as a basis for allocation decisions.

Ability information also enables society to channel educational subsidies into developmental opportunities for employees in areas in which they are likely to be productive. Moreover, employees themselves will have greater self-insight into their abilities (provided they have access to the data), enabling them to direct search efforts toward occupations and jobs to which they are better suited. The general quality of citizens' lives is improved to the extent that their job match enables them to realize their potential. At a more tangible level, the frequency of voluntary separations is reduced through improved person-job matches. As a result, the aggregate level of structural and frictional unemployment and associated expenditures on unemployment subsidies is reduced.

There are other, less beneficial outcomes of test usage. At a pragmatic level, with the exception of quotas designating the subgroup selection rates, hiring and promotion decisions on the basis of ability test information are likely to lead to inequalities in the employment attainment of various demographic groups. While there are alternative views of why such differences occur and how they can be remedied, the fact remains that success rates on valid and culturally unbiased cognitive ability tests are significantly associated with demographic features, therefore denying rights and creating distributive inequality. This is true of both merit-based and minimum competency decision rules, though differences in subgroup success rates are probably smaller in the latter case.

Assuming valid cognitive ability tests, society can entertain alternative versions of distributive justice: (1) accept differences in employment success that are merit-based, even if they lead to systematic subgroup inequalities; (2) require employers to adopt decision rules that accommodate the dual objectives of merit and subgroup representation (e.g., a quota system of top-down merit decisions within demographic subgroups); or (3) prohibit merit based employment decisions unless they result in equal subgroup representation; otherwise require alternative bases for decisions. At present, social policy appears to be closest to category 2. For example, Executive order 11246, though the subject of close scrutiny by the Reagan Administration, requires employers with federal contracts to establish hiring goals for protected groups and to make good faith efforts to achieve these goals. Similarly, the Supreme Court has repeatedly affirmed the legality of voluntary affirmative action programs. However, the Reagan

Administration is attempting to change this position to one in which jobs are assigned to individuals without regard to subgroup membership, with remedies offered only to individuals with proven records of discrimination. This suggests a shift from category 2 to category 1, at least in the executive branch.

The public might also suffer if employment decisions are based solely on cognitive abilities (using test results) at the expense of considering other applicant features (e.g., creative drive, manual skills, or the ability to empathize and work with less advantaged segments of society). Those lacking in the narrow set of cognitive attributes valued by society are at an employment disadvantage since their other strengths are not seen as compensatory. Moreover, opportunity costs are imposed on high-ability individuals who elect to emphasize attributes other than cognitive skills in making their career choices.

Finally, ability based employment decisions, particularly when administered in a top-down manner, might create an unemployable class. Queueing theory (Cain, 1975) suggests that those remaining at the bottom of the heap after the more attractive candidates have been sampled confront, at best, marginal employment opportunities and often become members of the permanently unemployed class. Merit rules or quotas—both of which follow a top-down approach—would be more likely than a minimum competency approach to create a permanently unemployable class of individuals. In the latter case, those excluded from employment would not all be at the end of the queue since hiring decisions are made randomly above a minimum cutoff point. Thus, there is a higher probability of subsequent employability since both high and low levels of ability are likely to be represented among those rejected under the minimum competency approach.

DISCUSSION AND CONCLUSIONS

This essay has discussed the societal and ethical implications of the use of cognitive ability tests for employment purposes. It quickly becomes clear that one cannot evaluate cognitive ability tests without clarifying how ability test information will be used. Much of the discussion, therefore, focused on the implications of alternative systems for using ability test information to make employment decisions. At a theoretical level, the use of tests according to different methods of allocation was evaluated against various moral and ethical principles. At a more pragmatic level, the consequences of these decision rules were then examined using a variety of criteria, including employer specific and global test accuracy, economic utility, and subgroup representation.

A key conclusion reached on the basis of the data simulations was that

global accuracy indices are relatively insensitive to differences in allocation rules. In other words, the impact on the overall economy of using test information according to different allocation principles is relatively small (though on a large scale, these small relative differences might translate into substantial absolute dollar savings). In contrast, single employers, who are directly affected by test accuracy only among those hired, stand to gain greatest economic utility from a merit-based approach. In terms of utility to the employer, quota systems take second place, and minimum competency strategies came in a distant third. Differences between employers' interests and those of the common good are because employers are primarily interested in test accuracy among those hired, while society is also concerned with whether or not individuals are correctly rejected.

It is arguable whether the common interest is best served by a public policy encouraging the hiring of less-able individuals, at the expense of the productivity attainable through pure merit hiring decisions, particularly if productivity benefits spread to the total economy, via economic growth. As noted previously, however, a rights approach might be used to argue against tests, particularly if those who score low are given fewer job opportunities or lower salaries. The principles of distributive justice also offer some guidance. For example, Rawls (1971) states that inequalities in hiring can be tolerated only to the extent that the proceeds from the gains in national productivity from test-based allocation procedures also serve the betterment of the economically disadvantaged group. However, as noted by Wolff (1977), there are many practical considerations that remain ambiguous, e.g., what to do with advantaged members of the disadvantaged group. Moreover, designing the procedures for transferring the proceeds of the productivity gains to needy members of the disadvantaged group would prove to be exceedingly difficult.

The effects of testing and test usage on society are not restricted to economic dimensions. These effects translate also into differences in the work experiences and quality of life of racial and ethnic groups in society. Use of test scores according to merit principles creates the largest disparate impact, followed by the minimum competency approach. Parity in subgroup hiring outcomes is achieved only through a quota system. Quota systems, while typically achieving slightly lower economic gains to the employer than merit-based approaches, still fare well against economic and accuracy criteria, a fact frequently overlooked by many business leaders and public officials. However, quota systems often subordinate the interests of the individual member of the majority group to those of the minority group.

Legal decisions to date apparently are willing to deny majority group members some employment opportunities as long as their rights are not unduly violated. What exactly is considered by the courts to be excessive violation of rights has not been made clear. This approach to distributive

justice represents a maximin system, in which it is considered just to create inequalities in order to improve the lot of disadvantaged members of society. While the descriptive evidence presented earlier suggests that individuals are sometimes willing to accept inequities in exchange relationships, it is unclear whether race or ethnicity are tolerated as the reason for these inequalities in favor of the disadvantaged group (i.e., reverse discrimination).

Because tests of employment are frequently used in conjunction with race-conscious quota systems, the heated debate over quotas often spreads erroneously to a challenge of testing practices. It is important that public policy makers recognize that cognitive ability test information can be used in a variety of ways, only one of which is a race- (or sex-) conscious quota system. Moreover, tests can be used in conjunction with other employment practices (e.g., remedial training or probationary periods) in order to increase the hiring probability of members of disadvantaged groups while, simultaneously, lowering the economic risks confronted by employers.

With ongoing advances in testing techniques, the accuracy of employment tests is likely to continue to improve, with a concomitant increase in their potential contributions to organizational and national productivity. Rather than "throw the baby out with the bath water," there needs to be a careful examination of the economic, social, and moral costs and benefits of employment ability tests to individuals, employees, and society as a whole. Once a clear understanding of the issues and tradeoffs emerges, public policy makers will be able to provide more coherent guidelines about the distributive justice principles that are to be promoted and methods to be used in applying test information.

APPENDIX A

Appendix A. Illustrative Examples of Hiring Outcomes under Different Selection Strategies^{1 2}

Bs			Ws		
# Hired	% Hired From Bs	% Bs Among Total Hired	# Hired	% Hired From Ws	% Ws Among Total Hired

Illustration 1:

$$\mu_{X(B)} = 90; \mu_{X(W)} = 100; \delta_{X(B)} = \delta_{X(W)} = 10$$

$$N_{(B)} = 300; N_{(W)} = 2000$$

1. Merit	0	0.00	0	100	5.00	100
2. Quota ³	50	16.67	50	50	2.50	50
3. Min. Comp. ⁴	8	2.67	9	92	4.60	92

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NOTE

1. Three SAS (Ray, 1982) subroutines: MATRIX, RANNOR, and CORR, were used sequentially to generate the random data sets used in the simulations. Details of this procedure can be obtained from the first author.

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THE RELATION OF EMPLOYEE ASSISTANCE PROGRAMS TO CORPORATE SOCIAL RESPONSIBILITY ATTITUDES: AN EMPIRICAL STUDY

Paul M. Roman and Terry C. Blum

Employee assistance programs (EAPs) are strategies of human resource management that have diffused widely in U.S. work organizations over the past decade. In the early 1970s fewer than 100 companies had prototype EAPs. This number has increased to an estimated 12,000 EAPs in 1986, based on projections from data in Kinman and Roman (1982).

This paper considers EAPs within the framework of attitudes about corporate social responsibility. First, we describe the basic forms and underlying assumptions of EAPs. Second, we consider the features of the environments of organizations to which EAPs may be seen as responsive.

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Third, we compare reported levels of corporate social responsibility between major corporations that do and do not have EAPs. Fourth, we examine the reasons why purveyors of EAPs, those who develop and implement EAPs in work organizations, think organizations adopt EAPs. Then, using data from a field survey of 440 company sites with EAPs, we compare the range of views held by employees in organizations with EAPs concerning their companies' social responsiveness. These bases for EAP adoption and variations in attitudes related to corporate social responsibility are then examined across different program characteristics. The data do not support the placement of EAPs directly within a corporate social responsibility framework but instead indicate that EAPs are viewed as some combination of a benefit to the workforce and a managerial tool. The data provide some very modest support for the hypothesis that employee-benefit conception is more common in those programs contracted to an external agency and that the managerial-tool conception is more common in programs operated internally. This distinction may foreshadow the emergence of distinctive EAP types in the future, in which those contracted to an external agency may be more closely aligned with conceptions of corporate social responsibility. We conclude with comments about the ethical issues that may be reflected in corporations' assumption of responsibilities for providing EAP services in their workplace.

THE NATURE OF EMPLOYEE ASSISTANCE PROGRAMS

Employee assistance programs are mechanisms to increase the chance for continued employment of individuals whose job performance and personal functioning are adversely affected by problems of substance abuse, psychiatric illness, family difficulties, or other personal problems (Roman, 1981). In a broad sense, the targets of EAPs are the range of problems affecting worker performance that are not the direct consequences of the job setting or job conditions. Thus, individuals whose performance is adversely affected by the inadequacy of their training, by changes in technology, by interpersonal clashes with coworkers and managers, or by the processes of biological aging are generally not among those suggested for referral to the EAP.

In general terms, two target populations can be defined: (1) those employees whose performance shows a pattern of decline that is not readily explained by supervision's observation of their job circumstances, and (2) those employees who are aware of personal difficulties that are affecting their work lives and who desire confidential assistance before problems become overt. These two categories define the main routes of referral to

EAP services, first through supervisory suggestion or confrontation, and second through self-referral (Sonnenstuhl, 1986).

The EAP introduces into the workplace professional expertise which allows initial assessment of the referred employee's problem, followed promptly by referral to a resource in the community best suited to deal with the problem in a manner that maximizes continuity of job performance. It is important to emphasize that EAP practitioners generally avoid the development of therapeutic relationships with employees but instead emphasize a speedy referral to resources outside the organization, minimizing the home organization's involvement in treatment or therapy. The EAP practitioner does, however, have a significant role in following up with the employee by (1) monitoring employee use of the referral resource, and (2) monitoring employee progress on the job or upon his/her return to the job if inpatient treatment is required. Bringing the expert referral resource into the workplace is the critical element in the implementation of an EAP. This can be accomplished by internal staffing or by contracting with an external agency.

In efforts to define the essence of EAPs and distinguish them from other parallel human resource strategies in the workplace, we have elsewhere delineated the "core technology" of EAPs (Roman & Blum, 1985) and the critical functions of EAPs (Roman & Blum, 1987). Very briefly summarized, the core technology of EAPs consists of six elements held to be unique to EAPs in that they do not appear in other human resource strategies and collectively can be regarded as "inventions" of the EAP research and practitioner community. These are: (1) the use of signs of deteriorating job performance as the basis for identifying employees with substance abuse or psychiatric problems, and urging managers, stewards, and peers to avoid confrontation with the individual on the basis of apparent symptoms of their disorders; (2) supervisory and shop steward consultation, providing these functionaries with assistance in defining cases appropriate for EAP services, guiding a referral, and subsequent consultative followup; (3) constructive confrontation of substance-abusing employees, using documented evidence of their poor performance to overcome their denial, to precipitate a crisis in terms of job security, and to offer constructive assistance in dealing with the problem; (4) linkage of the individual employee with the most appropriate helping resource while influencing the intervention toward maximizing job continuity rather than permitting total clinical control over the design of the intervention; (5) creating organizational linkages between the home organization and community-based service providers so that services most appropriate for the workforce are made available on the most cost-effective basis; and (6) providing a constructive alternative to the workplace in dealing with issues of employee substance abuse, unlike alternative strategies that recommend discipline

or removal of employees rather than attempting short-term rehabilitation.

The distinctiveness of EAPs can be described in five functions: (1) relieving managers, first-line supervisors, and shop stewards of the responsibility of counseling and providing assistance to troubled employees; (2) returning to effective job performance employees in whom the employer has a considerable investment; (3) providing due process to these employees in a societal context where work organizations are increasingly vulnerable to litigation over issues involving employee discipline and dismissal; (4) providing a means for health care cost containment, albeit one limited to the employer's costs associated with third-party payments for treatment for substance abuse and psychiatric problems, with the EAP providing cost-effective linkages to treatment resources; and (5) providing a relatively low-cost employee benefit to the extent that employees perceive the EAP services as incremental to the benefits they already receive.

The capsule descriptions of EAP core technology and key functions embed a host of assumptions, some of which are supported by research while others remain to be studied. One that is supported is the cost effectiveness of EAPs. Overall the evidence is strongly in favor of cost effectiveness, but this finding may be limited by the scope of services in which they engage. Tracking the costs associated with supervisory referrals of impaired performers is relatively straightforward, in contrast to self-referrals, to the use of services by family members, and to the outcomes of ancillary services such as health promotion, stress management, and other strategies of counseling employees on general problems in living. The data from the field study described later in this paper indicated that an average of 70 percent of the total referrals to EAPs were returned to the job and were performing effectively 12 months following their referral. Detailing the various cost factors associated with EAPs is beyond the scope of this paper, but the continuation of EAPs by the adopting employers in almost all instances is fair evidence that benefits are believed to be at least balanced with costs in the broadest sense.

EAPs AS RESPONSES TO ENVIRONMENTAL CHANGE

There are two ways to consider the historical antecedents of EAPs in order to derive the possible motives for corporations' initiating this type of program. While no historian has undertaken a full-blown history of EAPs, one set of written materials traces their origins to industrial alcoholism programs (Presnall, 1981; Trice & Schonbrunn, 1981). The other considers their structural and processual features more generally, with antecedents found in the Ford Sociological Department, Western Electric's Counseling Program, and psychiatric counseling for employees which has appeared in various settings over the past 50 years (Roman, 1983; Sonnenstuhl, 1986; Sonnenstuhl & Trice, 1986).

If we view corporate social responses in the context of environmental influences, then both of these historical approaches offer significant clues to the changes in the environment (broadly conceived) that generated EAPs. In general terms, these observations are organized by the schema offered by Preston (1978) in considering the multivariate origins of corporate social responses. Our variables are organized into three areas: technological change, cultural change, and legal change.

Technological Change

Changes in worksite technology and changes in the technology of problem intervention have set the stage for EAPs. Technical change at the worksite has reduced tolerance for factors that negatively affect cognitive functioning and attendant motor functions. The effects of mind- and mood-altering chemicals, of emotional mood swings, or of preoccupation or distress stemming from family problems can be very costly distractions from essential attention to work and its attendant details.

While technological changes have transferred the vast amount of energy expenditure in the workplace from humans and animals to inanimate machines, few of these machines have built-in correction devices to respond to changes in the functioning of their human operators. The potential costs of the cognitively or motor-impaired worker interacting with highly efficient inanimate devices are obvious and are not limited to blue-collar production.

Technological change also is reflected in service work, which generally involves unsupervised mobility on the part of employees, requiring that they move about a geographic area but do so efficiently in the sense of being able to find where they are going. The nonroutine mobility is matched by the nonroutine nature of much service activity, involving troubleshooting, diagnosis, and social transactions with clients. In combination, these roles all require alertness, awareness, and problem-solving skills, to say nothing of the image that such activities present to the customer. Thus it is evident that considerable loss can be caused by an employee affected by substance use or impaired by psychiatric difficulties or familial problems.

A third level of technological change, executive planning and decision making, is both more complex and vague but undoubtedly reflects the same decreasing tolerance for impaired performance. In all enterprises, increasing interdependence among organizations muddles what is already a highly complex environment in which organizations function. The processes of planning and resource allocation are not routine, and the tolerance for impaired decision making is low. This intolerance reflects competition at an organizational level, as well as an individual level. Individual executives and managers must plan, negotiate, and commonly finesse their

own careers, success in which may require spanning multiple organizations and thoughtful reactions to spontaneous opportunities.

The development of intervention techniques for dealing with substance abuse and with psychiatric disorder also affects the environment within which EAPs were to emerge. Trice and Schonbrunn (1981) clearly outline how the early industrial alcoholism programs were the consequence of corporate medical directors' exposure to successes of Alcoholics Anonymous (AA). With some exceptions, there was little in the way of specific treatment for alcoholism prior to 1935, other than encouragement of "drying out," which did not necessarily promote permanent abstinence. AA was founded in 1935 and offered a program that incorporated a progressive series of steps to sobriety. It defined sobriety as including elements other than abstinence and provided the basis for individuals' reorganization of their personal identity around a model of "recovered alcoholic" (Kurtz, 1979; Trice & Roman, 1970). Because of the fellowship's anonymity, there is not a great deal of information available to evaluate the AA strategy in comparison to other techniques. It is, however, clear that its products, recovering alcoholics, have become increasingly visible in the United States over time and thus have confirmed the existence of a technology to transform an active alcoholic into a recovering alcoholic, which is a new social category (Trice & Roman, 1970). This affords an opportunity to offer genuine help through workplace programs for employees with alcohol problems.

Parallel to the development of AA was the emergence of medicalized treatment strategies for persons with psychiatric problems (Conrad & Schneider, 1980) and, more recently, the delivery of intervention services to troubled marital partners and families. To a considerable degree, the general public recognizes and accepts such technologies as legitimate steps toward solutions of these personal problems (Veroff, Kulka, & Douvan, 1981). Thus, paralleling the therapeutic opportunities provided by AA, psychiatric treatment and marriage and family counseling, along with third-party insurance coverage, have emerged as legitimate technologies and provide the basis for both offering services and providing referrals through EAPs. It is very significant to note that the emergence and acceptance of these technologies are not a commentary on their rates of success. These interventions produce treated individuals, and any degree of improvement noted by observers may be enough to attribute success to the intervention.

The existence of therapeutic technologies was not adequate in itself to provide the essential ingredients for EAPs. During the 1960s and 1970s, both psychiatric and substance-abuse service providers recognized the commercial value of their services. Many moved toward placing their service delivery in organizational settings and ultimately established effective relationships with workplaces. During the 1930s, 1940s, and 1950s, psy-

chiatric and substance abuse services were respectively concentrated in state inpatient mental hospitals and in voluntary self-help groups. The nature and organizational structure of these service bases were not satisfactory for interfacing with workplaces (Blum & Roman, 1986). Thus, basing therapeutic services in organizations which are isomorphic with those organizations to which they seek to deliver services facilitates the forming of interorganizational relationships (Perrow, 1961) around the issue of providing treatment services for employees.

Cultural Changes

During the 20th century there have been important changes in American culture which have facilitated the emergence of EAPs. Critical to these considerations are the recognition of substance abuse, psychiatric disorder, and familial problems as appropriate targets for intervention and attempts at change. Prior to the 19th century it is very difficult to locate any references to the concept of "addiction" (Levine, 1978). Only the most florid cases of psychosis were socially recognized and regarded as appropriate objects for intervention, which in many cases was incarceration (Conrad & Schneider, 1980; Rothman, 1971). The concept of marital and family problems as a collective societal problem did not emerge until the 20th century (Lasch, 1979). It is likely that the fragmentation of the extended family and neolocal residence patterns were necessary for these discords to become defined as beyond normal problems in living. American society has become therapeutically oriented in large part as a consequence of processes of professionalization, intertwined with attitude change (Starr, 1984). Alcoholism and mental illnesses are not, however, "social" problems in the typical sense. What is of significance for facilitating the emergence of EAPs is that the location of these problems is individualized along with their solutions. Rather than connecting them with a collective need to alter society or the workplace as a means of reducing the incidence of these problems (Shostak, 1980), they are defined generally as biological in origin.

A marked cultural change of the 1970s and 1980s which facilitated the emergence of EAPs is the sharp increase in the number and proportion of women in the U.S. workforce (Trice & Beyer, 1979). Data indicate that EAPs are used heavily for marital and family problems (Blum & Roman, 1986), far beyond the degree anticipated by the early architects of EAPs. There is no doubt that work introduces considerable strain in households where both spouses work or in homes with single female parents.

Other cultural changes are intertwined with notions of employers' responsibility to their workforces. The beginning of employee benefits was

in part an organized effort at social control of the workforce, and ultimately as a means to avoid the emergence of labor unions (Thompson, 1983). The advent and diffusion of EAPs may represent a broader societal and cultural trend for employer involvement in many aspects of employee welfare, beyond the third-party coverage for physical health care that is normative in most medium- and large-sized work settings. While not documented, there may be a growing view that employees' personal and familial problems ultimately have an effect in the work setting. Thus a direct involvement in offering routes to assistance for these problems is more efficient than dealing with the long-term outcomes of employee problems that are left unattended.

Legal Changes

Intertwined with the cultural changes in the environment of organizations have been many legal changes in employers' rights, including erosion of the classic doctrine of "employment at will." Beyond this are two more specific areas of concern which represent legal changes that stimulate the emergence of EAPs.

While not an absolute precedent and certainly not a rule of law, there are various indications that the courts have come to recognize the existence of at least a partially effective technology for the treatment of substance abuse (Denenberg & Denenberg, 1983). From arbitration decisions and court cases, it can be concluded that the U.S. system of justice is coming to recognize that employers must treat employees with alcohol problems in a reasonable fashion (Sonnenstuhl & Trice, 1986). Generally, this means that they should be offered an opportunity to obtain or receive treatment prior to a dismissal decision. An employee's refusal to admit to a problem, despite other evidence, and the employee's failure to respond to the offer of treatment or to the treatment itself are both bases for eliminating further employer responsibility. A similar pattern is found in cases of psychiatric illness among employees (Sonnenstuhl & Trice, 1986).

The second area of legal concern is employer responsibility for the development of substance abuse or psychiatric problems. Here there is evidence that employers have been held responsible for harboring working conditions that are alleged to have produced mental illness in their employees (Sonnenstuhl & Trice, 1986; Trice & Belasco, 1966; Trice & Roman, 1971). Despite several legal suits, there is no evidence that employers are being held legally responsible for creating alcohol or drug problems among their workforces, but it is predicted that this will change in the direction of holding employers responsible (Sonnenstuhl & Trice, 1986). Thus, in broad terms, there has been some change in the legal environment relating to adverse actions or dismissals, and reasonable offering of sub-

stance abuse or psychiatric services has appeared to emerge as an important guideline. It is less clear whether employers will be held responsible for causing such problems within their work forces.

There are no legal requirements yet for any substantial group of employers to have EAPs in place. A 1976 proposal to require government contractors to have EAPs in order to be eligible for further contracts never got beyond committee hearings, with several EAP practitioners arguing that EAP effectiveness would be undermined if they were legally mandated. It is critical to avoid confusion between EAPs and drug/alcohol screening programs which have a distinctively separate set of assumptions, although in some instances these programs' discovery of employee drug problems may lead to referrals to EAPs if both are present in the same organization.

In sum, this account is only a partial catalog of the environmental changes that have been hospitable to the innovation of EAPs. Apart from these forces, the federal government specifically invested in grants to all of the states to begin the process of widespread EAP initiation in the early 1970s, stimulating investments from states and nonprofit organizations (Blum, 1987; Blum, Roman, & Tootle; Roman, 1982). An occupational group, known as occupational program consultants (OPCs), may have been an independent factor in the diffusion of EAPs. To what extent these change agents have indeed created a sense of need for these programs remains unknown; yet it appears in retrospect that corporate "readiness" for these efforts was stimulated from several sources.

CORPORATE SOCIAL RESPONSIBILITY AND EAPs

Having elaborated the nature of EAPs and the social environment in which they have arisen, we turn to examining empirical relations between them and corporate social responsibility. We look at three data sets, all of which were collected for other purposes but which include some indication of the possible associations between the concrete structures of EAPs and the attitudinal orientation toward corporate social responsibility. We have chosen from these data sets measures of corporate social responsibility that are very general and probably somewhat arbitrary: the indices examined focus on the reported orientations of companies toward the social problems and welfare of their surrounding communities and toward the welfare of their own employees. The first is a more generic measure of social responsibility, but the latter is not exclusive of community concerns, to the extent that support and aid extended to individual workers ultimately improve the quality of life of the community and reduce possible dependence on community resources.

The first and obviously most basic question is whether organizations with EAPs are more socially responsible than those that do not have EAPs. Since our data are cross-sectional, we do not posit a direction for this relationship but instead view it in correlational terms, i.e., to what extent are these two features of organizational life found together? In 1979 the National Institute on Alcohol Abuse and Alcoholism cosponsored an Executive Caravan survey conducted by the Opinion Research Corporation, developing data on EAP activity within what was designated the "Fortune 800" corporations, i.e., the Fortune 500 plus the largest nonmanufacturing corporations in the private sector. The Opinion Research Corporation utilizes a sampling strategy that represents this corporate population, and staff conduct personal interviews with top-echelon executives in the sample corporations, which in this instance included data on the respondents' perceptions of their companies' orientation toward social responsibility as well as information on the presence of an EAP (for details about the overall study, see [Roman, 1982]).

In Table 1 the item that we believe taps "generic" corporate social responsibility is shown along with an item about the corporations' orientations to employee welfare. The data show a significant and fairly strong

Table 1. Attitudes Toward Corporate Social Responsibility in Major Corporations with and without EAPs

<i>This company is concerned with community social problems</i>			
	<i>Very Accurate Description</i>	<i>Somewhat Accurate Description</i>	<i>Not an Accurate Description</i>
EAP present 1979 (N = 277)	71.0%	46.3%	34.5%
EAP not present 1979 (N = 212)	29.0%	53.7%	65.6%
Chi square $p < .0001$			
<i>The personal welfare and happiness of employees is important to management</i>			
	<i>Very Accurate Description</i>	<i>Somewhat Accurate Description</i>	<i>Not an Accurate Description</i>
EAP present 1979 (N = 277)	61.0%	51.9%	48.7%
EAP not present 1979 (N = 212)	39.0%	48.1%	51.3%
Chi square $p = .06$			

relationship between the generic corporate social responsibility item and the presence of an EAP, offering little doubt as to the greater likelihood of the presence of this attitude when an EAP is present, or *vice versa*. Recognizing the limitation of these data to major corporations and to 1979, the link does, however, appear strong. There is not a statistically significant relationship between the item focused on employee welfare and the presence/absence of an EAP, although the direction is the same.

Using this data set, we also explored whether the attitude toward corporate social responsibility was related to the apparent quality of the EAP that was present in the company, positing that higher perceived responsibility would be associated with higher EAP quality. To this end we compared the presence of 10 structural features of EAPs across different levels of social responsibility attitudes reported in the EAP companies and found no statistically significant associations. Thus while social responsibility attitudes are related to EAP presence, they are not related to the apparent level of investment or quality associated with the corporation's EAP.

To explore this association further, we examined two other data sets. The first of these is beliefs about corporate attitudes toward EAPs revealed in a survey of EAP purveyors, and the second is consideration of the correlates of social responsibility attitudes within a large and diverse sample of organizations with EAPs.

ATTITUDES TOWARD EAPs AND TOWARD SOCIAL RESPONSIBILITY AMONG PRACTITIONERS

As has been described, EAPs represent employers' constructive response to employees' personal problems in three general areas: substance abuse, psychiatric disorder, and family disorder. It is important to note that the marketing of these programs has generally occurred in a context of sound management practice and favorable cost-benefit ratios for the corporation rather than through stressing corporate social responsibility (Roman, 1981; Roman, 1982; Roman & Trice, 1976; Blum, Roman & Tootle, 1987). A theme that has persisted throughout the history of EAPs and their immediate predecessors is that employers stand to gain substantially from the adoption and implementation of an EAP. At the same time, the outcomes of EAPs in terms of employees who are successfully treated and returned to effective job performance are stressed as the human payoffs of these programs. The benefits to employers and employees are in many instances coupled with the benefits that EAPs offer to unions, aiding them to meet their goals of maximizing members' welfare while assuring due

process. What results is a characterization of EAPs as efforts that benefit all participating parties, with no particular cost exacted from either management, employees, or organized labor. Presumably all benefit collectively through the common attack on the externalized foes of substance abuse, psychiatric illness, and family disorder.

By extending the scope of services to employees through the broad EAP concept, it would seem evident to the external observer that EAPs are an exemplary instance of the corporation fulfilling its responsibilities to the broader community. A catalog of direct results of EAPs would include employees who have recovered from alcoholism, family members whose welfare has improved by the elimination of an active alcohol or drug problem affecting a breadwinner, alleviation of the distress of psychiatric problems, and restoration of family harmony through interventions which have resolved individual or interpersonal strains. Without an EAP, it is presumed that a corporation's employees are "on their own" in seeking resolution of these personal problems; perhaps employee benefits include health insurance coverage for the treatment of substance abuse or psychiatric illness, but without the EAP the employee is envisioned as the victim of the natural course of events. Since all of these problems are more or less defined in an illness framework, it is assumed that a course of deterioration will follow if there is no external intervention. Thus, without assistance or guidance, the employee whose life is affected by one or more of these problems is presumed to minimize, normalize, and cover up these difficulties until a crisis occurs which demands action and attention from professional resources. Therefore, while the EAP did not invent the idea of employees seeking professional help for personal problems, it is believed to provide considerably more efficient and less painful attempts at resolving these problems. This occurs through early intervention, made possible by the availability of the professional referral resource directly within the corporate walls or at a very short distance outside.

While we can continue to list EAP benefits, EAPs are *not* typically characterized by their purveyors as instances of corporations aiding the community through extending assistance to troubled people. An important empirical question is why efforts that have such evident positive impacts on the community are not defined as examples of corporate action in the interest of the community.

We believe that this might be explained through the structure of an emerging occupation (Blum, Roman, & Tootle, 1987). We contend that the movement to adopt EAPs has been largely driven by an emergent practitioner community which has advanced a consensual notion of what EAPs are and what they are supposed to accomplish. This is, however, a hypothesis, for it could be argued that EAPs are a reflection of the

environmental influences outlined previously. From that perspective, EAPs would have emerged in companies whether or not purveyors had been on the scene to initiate adoption. In any event, we have a community of EAP practitioners whose considerable vested interests center around the attractiveness of EAPs to work organizations. Since the adopters of EAPs have not become organized into a consumer group, we cannot as easily discern their common perceptions or definitions of EAPs, if indeed commonality exists. What is both exciting and discouraging for this analysis is that we are dealing with phenomena that are in the early stages of becoming institutionalized, and thus there are more vagaries than might be desirable.

The present collectivity of EAP practitioners numbers at least 5,000, 4,500 of whom are members of the Association of Labor and Management Administrators and Consultants on Alcoholism (ALMACA). An estimated 40–50 percent of the membership of ALMACA comprises individuals who are largely external providers of EAP services to companies, although a small proportion of them function primarily to aid employers in launching internal programs.

In exploring the issue of corporate social responsibility as applied to EAPs, we consider the definition held by members of this occupational group. This group is descended from recovering alcoholics and clinical personnel who from the 1940s through the 1960s endeavored to diffuse concepts of providing constructive help to employed alcoholics as part of a broader mission of destigmatizing alcoholism and mainstreaming its treatment into the broader health care system (Roman & Blum, 1987; Roman & Trice, 1976). As the new occupational group emerged in the early 1970s, it was evident that it sought to remove itself from the prior identity of “doing good” and helping the fallen alcoholic (Roman, 1981). Thus to a considerable extent, the occupational program consultants (OPCs) moved toward identifying themselves as human resource specialists and have especially clung to their formal label as organizational “consultants.” Because of their background in the helping occupations, the perceived higher prestige associated with human resource and management activities, and the professionalization that they desired for themselves, they have tended to conceptualize EAPs much more in the realm of strategies of management and organizational cost-saving than as ways for organizations to fulfill their social responsibilities in the community.

In 1981–82, we undertook a nationwide census of persons functioning as OPCs which revealed 1,040 individuals in such roles on a full- or part-time basis. A mail questionnaire survey of this population yielded 724 usable responses. One of the questionnaire forms, given to a third of the group chosen at random, included questions about the OPCs’ conceptions of EAPs. The results are shown in Table 2.

Table 2. OPCs' Assessments of Reasons for Organizations' EAP Adoption (N = 195)*

	<i>Less Important**</i>	<i>More Important</i>	<i>Mean</i>
EAP will save money for the organization	13%	61%	3.80
EAP will reduce absenteeism	6%	74%	3.93
EAP will help salvage the services of valued employees	4%	79%	4.08
EAP will boost employee morale	32%	31%	3.00
EAP will provide good public relations	28%	39%	3.15
EAP is part of the organization's responsibility to the community	41%	33%	2.86

*Subset of 724 respondents, these items were administered to a randomized third of the overall sample.

**Data are from responses to a 5-point Likert scale, with responses 1 and 2 combined, 4 and 5 combined, and with respondents choosing the neutral midpoint omitted. 1 = Not Important, 5 = Very Important.

It is evident from this list that the respondents strongly identify EAPs in the realm of cost-saving devices and managerial innovations. Only a third believe that an EAP is adopted as part of the organization's responsibility to the community. These data certainly cannot be used to indicate that EAPs are viewed by EAP practitioners as having no relationship to the fulfillment of corporate social responsibility, but it is not seen as their principal emphasis.

COMPANY-BASED PERCEPTIONS OF RATIONALES FOR EAPs

The third data set examined was collected in 1984-85. The goal was to conduct a wide-ranging exploration of the nature and variations found within a population of EAPs. We conducted on-site interviews in 440 sites which represented the population of EAP sites in six states that met our study criteria. The criteria were private sector locations with at least 500 employees and evidence of an EAP in either the form of a written policy statement or a formally designated program coordinator. The states included in the study were Michigan, California, Texas, New York, North Carolina, and Minnesota. Our pretest experiences had led us to expect that nearly all of these programs would be internal, with an on-staff EAP coordinator. The data revealed that only 68 percent fit this definition. Thus in the on-site visits we interviewed slightly different types of functionaries in the two different types of programs. In the internal program sites, the designated EAP coordinator was the source of all data. In the

external program sites, we interviewed the person whom we came to designate as the "liaison," those individuals who had been charged by their organization with the responsibility of supervising the performance of the external contractor who was providing the EAP services. The research data are from a personal interview, which lasted an average of two and one-half hours, after which the interviewee was left with questionnaires about attitudes and personal characteristics and about the outcomes associated with their particular EAP. We were able to achieve a 77 percent response rate to the questionnaire materials.

These data provide opportunities to explore the relationship between EAPs and notions of corporate social responsibility. It is very important to keep in mind that these data describe company locations that have adopted EAPs, and we do not in this data set have comparisons for companies without EAPs. Our research proposal indicated that we would visit matched sites without EAPs for half of the EAP sites where data were collected. This task proved impossible since nearly all of the matched sites identified by our respondents as being without EAPs indicated that indeed they were planning to implement one. This precluded the goal of collecting information from a comparison group, which we had intended to include companies which had rejected the EAP concept and which were using alternative strategies for dealing with troubled employees. Thus, referring back to our 1979 data, the organizations studied likely represent, as a group, above-average sensitivity to issues of corporate social responsibility.

In Table 3 are displayed the six items from the program coordinator/liaison questionnaire that have a bearing on attitudes toward corporate social responsibility. We are interested in the extent to which a common attitude is tapped. The first two items are the most basic indices of corporate social responsibility, one emphasizing the welfare of the community and the other emphasizing the welfare of their employees, the two correlated at the level of 0.50. This indicates that attitudes toward employee welfare issues and community welfare issues overlap but are partially independent. The third item is specifically concerned with whether EAP companies have a perspective of being more concerned about their employees than are comparable companies; this item correlates at about the same level (0.58) as its "parent" item with overall community welfare orientation. The last three items, which focus more directly on the EAP, indicate considerable independence with the companies' reported attitude toward welfare of the surrounding community. There is, however, a strong correlation (0.66) between the notion of "going out of the way to help employees in trouble" and overall reported concern about employee welfare and happiness. The item specifically concerned with the EAP is essentially designed to indicate whether the EAP exists because of a sense

Table 3. Pearson Correlations of Social Responsibility Attitudes in EAP Companies (N = 337)

	1.	2.	3.	4.	5.	6.
1. Promotes welfare of surrounding community	1.00					
2. Real interest in welfare and happiness of employees	0.50	1.00				
3. More than similar organizations, has a real interest in the welfare and happiness of employees	0.58	0.79	1.00			
4. Really goes out of its way to help employees in trouble	0.35	0.66	0.61	1.00		
5. Maintenance of EAP is based on altruism	0.28	0.37	0.40	0.33	1.00	
6. Provides adequate benefits for all employees	0.32	0.43	0.41	0.28	0.13	1.00

of corporate social responsibility, although "altruism" conceivably taps different notions. This item has relatively low correlations (0.13 to 0.40) with the other items in the matrix. Finally, we were interested in the extent to which the provision of employee benefits is associated with notions of corporate social responsibility, and again find relatively weak associations between the reported provision of benefits and general corporate responsibility (0.32 and 0.43), and between the reported provision of benefits and helping employees in trouble (0.28), or providing them with an EAP out of a sense of altruism (0.13).

Without overgeneralizing, the correlations in this table support several observations. First, at least within companies of this size with EAPs, the notion of corporate social responsibility appears multidimensional. Second, the notion of an altruism-based EAP, which we thought might be linked with the notion of corporate social responsibility, is not strongly correlated with the basic measures of corporate social responsibility attitudes. Third, the provision of employee benefits, which certainly could be construed as the organization's assumption of responsibilities that have an impact on familial and community welfare, appears here to stand as a somewhat independent dimension from the other measures.

In Table 4 we present the results of t-tests which compared the scores of different dichotomies of our organizational sample; these represented

Table 4. Means for between Group Comparisons on Corporate Social Responsibility

	Promotes welfare of surrounding community	Real interest in welfare and happiness of employees	More than similar organizations, real interest in welfare and happiness of employees	Really goes out of its way to help employees in trouble	Provides adequate benefits for all employees	Maintenance of the EAP is based on altruism
Listed in "100 Best Companies to Work For"; Yes, 31/No, 305	4.16/3.90	4.38/3.93**	4.32/3.78**	4.35/4.03**	4.71/4.39**	3.48/3.30
Worksite size: <1000 = 136/ > 1000 = 200	3.93/3.92	4.02/3.94	3.85/3.82	4.14/4.00	4.40/4.43	3.38/3.28
Year EAP started: Before 1980 = 159/ After 1980 = 177	3.89/3.95	3.93/4.01	3.81/3.85	4.11/4.01	4.43/4.41	3.41/3.24
Alcohol caseload level 30% or less = 171/30% + = 163	3.99/3.85	4.05/3.89	3.94/3.72*	4.07/4.04	4.45/4.39	3.45/3.19*
Internal/external location of program 236/99	3.85/3.86	3.91/4.16*	3.77/3.97*	3.98/4.25**	4.37/4.54*	3.30/3.38

Higher scores indicate greater agreement that item characterizes respondent's company.

*p<.05, t-test

**p<.01, t-test

dimensions which we expected to be associated with attitudes toward corporate social responsibility. In the first row are the scores on the attitude items of those EAP companies in our study that are and are not listed in the recent book, *The 100 Best Companies to Work For*. Since the compendium of the 100 "best" was based upon the apparent manner in which these companies treated their employees, the presence of this comparison is a partial validation of the items which we utilized. The data indicate that the companies among the "100 Best" do indeed show significantly higher scores on four of the six items in the table. Of note is that the significant difference is not found for the item we regard as the generic measure of the corporate social responsibility concept, i.e., promotion of the welfare of the surrounding community. There is also no significant difference on the item that asks whether the EAP is maintained out of corporate altruism. This may be important confirmation that the EAP lies outside corporate social responsibility attitudes, since the "100 Best" are supposed to be exceptional in their provision of benefits. The data indicate that the EAP is not seen as a "gift" or privilege accorded to the workforce by management, or that all companies, "best" or not, see it equally as a gift.

We had expected that corporate social responsibility attitudes would be positively related to size, on the assumption that size is in turn related to greater organizational "slack" and availability of resources to aid the community and the workforce. This variable was not related to any of the attitude items. Neither was the age of the EAP, although in our fieldwork it had appeared that older programs were more skewed toward the managerial tool concept while newer ones were more of the employee benefit type. We used alcohol problem caseload level as a proxy for programs with a stronger managerial-tool orientation, since management involvement is generally necessary to generate employee alcohol problem referrals, but this measure produced a significant difference in only one instance where the lower alcohol caseload companies reported significantly higher levels of organizational interest in employee welfare as compared to other similar organizations.

Exploration of our data in other contexts has produced some distinctive differences between internal and externally based EAPs, which was the basis for the inclusion of this variable here. The data show significant differences on four variables. The differences in two variables might be artifactual in that the respondents for the external programs were the internal liaisons, who may have less tolerance than internal EAP administrators for troubled individuals, thus indicating that their organizations have, on average, interest in the welfare of their employees and go to relatively greater lengths to help them.

In Table 5 we consider the difference between internal and externally

Table 5. All Reasons Mentioned for Continued Support of EAP in EAP Companies (N = 430)

	All EAPs	Internal EAP	External EAP
"Saves Money"	28.0%	33.9%*	15.5%*
Health care cost containment	6.4%	7.4%	4.2%
Good Management Policy	30.5%	29.5%	32.4%
Agreement with or pressure from union	6.6%	8.7%*	2.1%*
Impact on alcohol problems	6.8%	8.4%*	3.5%*
"Seems to work"	33.2%	35.9%	27.5%
"People are helped"	43.6%	39.3%*	52.8%*

*Chi-square value, $p < .05$

based EAPs concerning the companies' reasons for continuing support of the EAP, as reported by program coordinators and liaisons. The most prominently reported reason is "helping people," a concept we regard as toward the pole of corporate responsibility and which indeed shows significantly greater mention in companies with externally based programs. We are generally unable to classify the next two most commonly mentioned reasons in terms of corporate social responsibility; both "seems to work" and "good management policy" are relatively neutral, although the latter may be viewed as pointing EAPs toward the managerial-tool classification. There is not a significant difference between internal and external programs on either of these items. A significant difference does emerge for "saving money," confirming our general hypothesis about internal/external program differences, but this finding is not sustained in terms of the "health care cost containment" reason. For the less frequently mentioned reasons, decision makers in companies with internal programs are reported as significantly more likely to maintain their EAPs because of union relations and because of the impact the programs have on employee alcohol problems.

These data offer no clear placement of the EAP concept regarding attitudes toward corporate social responsibilities, and we have not located a subtype of EAP where this categorization clearly fits. It may be most fruitful to view EAPs as combining several different concepts in their adoption and implementation. Daft (1986) has suggested that the classification of innovations in organizations includes administrative innovations, which change the essential managerial operation, and human resource innovations, which are essentially new ways of dealing with employees, including the provision of benefits. It appears that EAPs fall

squarely between these two types of innovation and that EAPs' presence in organizations likely stimulates multiple conceptions of their functions and value among both managers and employees.

CONCLUSION: TOWARD ETHICAL CONCERNS

In the preceding discussion we have described the nature of EAPs and their origin within the contemporary environments of work organizations. The data we have presented from studies of both EAP practitioners and of EAP firms do not indicate that either group views EAPs clearly within an attitudinal framework of corporate social responsibility, although the first data set demonstrates that companies with EAPs are markedly more likely to be characterized as responsive to community welfare.

To the extent of our knowledge, through both field research and anecdote, we know of practically no situations in which EAPs have been implemented in a context of conflict. Where they have been adopted (which includes the vast majority of large corporations), there seems a common attitude that everyone benefits: the employee's job is saved and/or there is recovery from the effects of personal problems; disruption of organizational functioning is minimized in terms of both day-to-day work group productivity and morale as well as in terms of the potential costs of turnover and replacement; labor unions and other organizations benefit from avoidance of eventual grievances and attending to employee welfare; and the community benefits by reducing the likelihood that an employee will eventually become unemployed and thus dependent on community welfare programs. The only disruptions to this enthusiasm have come from some who contend that particular substance abuse and psychiatric service providers have unduly benefited from their linkages with particular company EAPs.

In the context of this consensus, ethical issues about corporate management of EAPs have rarely been raised. It is in fact likely that EAP practitioners would see ethical problems among those employers who do not provide this service rather than among those that do. While we have elsewhere described in detail the ethical considerations involving EAPs at the level of the individual and the work group (Roman & Blum, 1987), we here restrict ourselves to the relationship between the corporation and the community in the area of ethical concerns.

EAPs involve the corporation in the employee's choice of health care services to the extent that an EAP referral leads in turn to a referral of the employee to a community-based resource. On the positive side, this referral can be viewed as a service to the employee, guiding him/her and family members to a community resource known to the EAP practitioner

as efficient and effective in providing services. Through eliminating the search for a diagnosis of one's problem, which is provided by the EAP specialist, and for the need to sift through the possibilities for receiving assistance in the community, the employee's likelihood of successfully coping with his/her problem may be enhanced.

To what extent could the employer affect the diagnosis and/or the referral process in ways that would be unethical? There are at least three possibilities. First, it is likely that the diagnosis provided by the EAP practitioner, an employee of the corporation, will take attention away from the effects of the job on the employee's mental health and likely focus on the family environment or the employee's internal mental functioning. Can the EAP practitioner recommend to an individual that he/she quit their job in order to gain control over a substance abuse problem or regain mental health? Can the EAP practitioner be subtly directed in his/her diagnosis of the problem by the value of the employee to the corporation?

Second, the choice of a provider by the EAP practitioner ideally reflects professional judgment in maximizing efficiency and effectiveness. To what extent can these choices be directed almost exclusively to cost, especially in corporate settings where it is perceived that health care costs are excessive and growing? In terms of referral resources, is "best" for the employee necessarily "best" for the employer, and vice versa?

Finally, as occurs with other interorganizational arrangements, what is the likelihood that the emergence of "preferred providers" in terms of EAP referrals simply reflects mutually beneficial economic partnerships between corporations and providers rather than the best choice for the employee in terms of recovery from a particular problem? Closely aligned with this set of issues is the employer's interest in the employee's full recovery from his/her debilitating problem, as contrasted to the bottom-line need of getting the employee back to work as quickly and as cheaply as possible.

At least in theory, EAPs are voluntary programs in that no employee must use the offered service. Its use may be a temporary alternative to discipline, but resumption of adequate job performance is the employee's ultimate responsibility whether this is accomplished with or without the use of proffered EAP services. Nonetheless, the temptation to urge the use of EAP services as an alternative to discipline, particularly among shop-floor personnel, is very strong. A host of ethical issues is raised when the employee accepts a service as an alternative to discipline, implying a contract with the employer that these services will provide the acceptable solution to the problem.

The most significant ethical issue relative to corporations' offering of EAP services is the involvement in the employees' use of health care

benefits. Depending on one's perspective, this involvement is either facilitative by helping the employee choose the best resource or restrictive by narrowing the employee's choices to those that are in the best economic interest of the employer. At issue is whether these benefits are autonomous privileges, or whether their use can be "cooperatively guided" by the organization and the service providers. At present, however, there seems to be considerable sanguinity about possible ethical concerns, with critics of EAPs practically impossible to identify. Diffusion of knowledge of EAP activities will surely increase over time, and a greater concern with the potential ethical dilemmas ultimately may emerge.

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